CONTENTS OF VOLUME 49*

FEBRUARY 1963, NUMBER 1

STAUBER, LESLIE A. Some Aspects of Immunity to Intracellular Protozoan Parasites . 3

BAERNSTEIN, HARRY D. A Review of Electron Transport Mechanisms in Parasitic Protozoa 12

HEWITT, REDGINAL, JOSEPH ENTWISTLE, AND EDNA GILL. Quantitative Determinations of Critical Mortality Periods in Untreated and Treated Infections with the B Strain of *Trypanosoma cruzi* in Mice 22

LINCICOME, DAVID RICHARD, AND JACQUELINE SHEPPERSON. Increased Rate of Growth of Mice Infected with *Trypanosoma duttoni* 31

WALTON, BRYCE C., AND THEODORE BACHARACH. Occurrence of Trichomonads in the Respiratory Tract. Report of Three Cases 35

SAWYER, THOMAS K., AND PAUL P. WEINSTEIN. Studies on the Microfilariae of the Dog Heartworm *Dirofilaria immitis*: Separation of Parasites from Whole Blood . . 39

WORLEY, DAVID E. Experimental Studies on *Obeliscoides cuniculi*, a Trichostrongylid Stomach Worm of Rabbits. I. Host–Parasite Relationships and Maintenance in Laboratory Rabbits 46

WORLEY, DAVID E., AND PAUL E. THOMPSON. Experimental Studies on *Obeliscoides cuniculi*, a Trichostrongylid Stomach Worm of Rabbits. II. Anthelmintic Studies in the Dutch Rabbit 51

DUDZINSKI, M. L., AND R. MYKYTOWYCZ. Relationship Between Sex and Age of Rabbits, *Oryctolagus cuniculus* (L.) and Infection with Nematodes *Trichostrongylus retortaeformis* and *Graphidium strigosum* 55

CIORDIA, H., AND W. E. BIZZELL. The Effects of Various Constant Temperatures on the Development of the Free Living-stages of Some Nematode Parasites of Cattle . 60

CLEELAND, ROY. The Effects of Different Atmospheres and Various Supplements on the in vitro Survival and Growth of *Ascaris suum* Larvae 64

SZYFRES, BORIS, AND IRVING G. KAGAN. A Modified Slide Latex Screening Test for Hydatid Disease 69

WAITZ, J. ALLAN. Histochemical Studies of the Cestode *Hydatigera taeniaeformis* Batsch, 1786 73

CAMPBELL, WILLIAM C. The Efficacy of Surface-active Agents in Stimulating the Evagination of Cysticerci in vitro 81

VOGE, MARIETTA. Observations on the Structure of Cysticerci of *Taenia solium* and *Taenia saginata* (Cestoda : Taeniidae) 85

FISCHTHAL, JACOB H., AND ROBERT E. KUNTZ. Trematode Parasites of Fishes from Egypt. Part V. Annotated Record of Some Previously Described Forms 91

MANTER, HAROLD W. Studies on Digenetic Trematodes of Fishes of Fiji. II. Families Lepocreadiidae, Opistholebetidae, and Opecoelidae 99

ETGES, F. J., AND C. L. DECKER. Chemosensitivity of the Miracidium of *Schistosoma mansoni* to *Australorbis glabratus* and Other Snails 114

MOORE, DONALD V., RICHARD B. CRANDALL, AND GEORGE W. HUNTER III. Studies on Schistosomiasis. XX. Further Studies on the Immunogenic Significance of *Schistosoma mansoni* Eggs in Albino Mice When Subjected to Homologous Challenge . 117

BURTON, PAUL R. The Uptake of Radiosulphate by *Haematoloechus medioplexus* . . 121

THATCHER, VERNON E. A New Species of *Westella* (Trematoda : Opisthogoniminae) from a Mexican Snake 123

CLIFFORD, CARLETON M., AND HUGH L. KEEGAN. A Redescription of *Andreacarus petersi* Radford, 1953 (Acarina Laelaptidae) and Clarification of the Status of this Genus within the Subfamily Laelaptinae 125

* Announcements, Book Reviews, and In Memoriams are not listed here. Refer to Index.

KAISER, MAKRAM N., AND HARRY HOOGSTRAAL. The *Hyalomma* Ticks (Ixodoidea, Ixodidae) of Afghanistan 130

COUCH, ANDREW B., JR. Notes on the Biology of *Microlynchia pusilla* Speiser, a Lousefly of Mourning Doves 140

Research Notes

STRANDTMANN, R. W., B. MCDANIEL, AND MANNING A. PRICE. New Host and Distribution Records for *Pellonyssus passeri* Clark and Yunker (Acarina : Dermanyssidae) . 38

DOWNS, WILBUR G. The Presence of *Trypanosoma cruzi* in the Island of Trinidad, W.I. 50

SMITH, WILLARD N., AND LEONARD REID DAVIS. Direct Transmission of Coccidial Infection in Sheep 59

LANG, BRUCE Z. Comparison of the Xiphidiocercariae of *Plagiorchis muris* and *P. proximus* (Trematoda : Plagiorchiidae) 84

MURRELL, K. DARWIN. *Helisoma antrosum*, First Intermediate Host for *Wardius zibethicus* Barker and East, 1915 (Trematoda : Paramphistomidae) 116

PETERS, LEWIS. *Crepidostomum illinoiense* (Trematoda)—Its Excretory System and Miracidium 147

COLLEY, FREDERICK C., AND ANDREW C. OLSON, JR. *Posthodiplostomum minimum* (Trematoda : Diplostomidae) in Fishes of Lower Otay Reservoir, San Diego County, California 148

BARBOSA, F. S. Survival in the Field of *Australorbis glabratus* Infected with *Schistosoma mansoni* 149

LUTTERMOSER, GEORGE W. Infection of Rodents with *Schistosoma mansoni* by Ingestion of Infected Snails 150

MOOSE, JOHN W. Growth Inhibition of Young *Oncomelania nosophora* Exposed to *Schistosoma japonicum* 151

VOGE, MARIETTA. Sensitivity of Cysticercoids of *Hymenolepis microstoma* (Cestoda : Cyclophyllidea) to High Temperature Stress 152

CROSS, JOHN H., JR. Sparganosis in Two Members of an Arkansas Family . . . 154

MATTHIAS, DIANNA V. Helminths of Some Waterfowl from Western Nevada and Northeastern California 155

ALICATA, JOSEPH E., GUY LOISON, AND ANDRÉ CAVALLO. Parasitic Meningoencephalitis Experimentally Produced in a Monkey with Larvae of *Angiostrongylus cantonensis* 156

STEWART, T. B., AND K. M. KENT. Beetles Serving as Intermediate Hosts of Swine Nematodes in Southern Georgia 158

SHARMA, N. N., W. MALCOLM REID, AND J. W. FOSTER. A Cleaning Method for Coccidial Oocysts Using Density-Gradient Sedimentation 159

Society Business 161

APRIL 1963, NUMBER 2

JARRETT, WILLIAM F. H., AND N. C. CRAIG SHARP. Vaccination Against Parasitic Disease: Reactions in Vaccinated and Immune Hosts in *Dictyocaulus viviparus* Infection 177

ZAM, S. G., W. E. MARTIN, AND L. J. THOMAS, JR. In vitro Uptake of Co^{60}–vitamin B_{12} by *Ascaris suum* 190

MA, L. Trace Elements and Polyphenol Oxidase in *Clonorchis sinensis* 197

GRAFF, DARRELL, AND KENNETH ALLEN. Glycogen Content in *Moniliformis dubius* (Acanthocephala) 204

LINDAHL, IVAN L., K. C. KATES, J. H. TURNER, F. D. ENZIE, AND G. E. WHITMORE. Effect of Management Systems on the Growth of Lambs and Development of Internal Parasitism. I. Dry Lot vs. Two Pasture Rotation Systems 209

SAWYER, THOMAS K., AND PAUL P. WEINSTEIN. The in vitro Development of Microfilariae of the Dog Heartworm *Dirofilaria immitis* to the "Sausage-form" 218

BRIGGS, N. THEODORE. The Effects of Cortisone Treatment on Natural Resistance and Acquired Responses of the White Rat to Infection with *Litomosoides carinii* . . 225

STEWART, T. B., AND H. J. GODWIN. Cuticular Lesions of *Ascaris suum* Caused by *Pseudomonas* sp. 231

ISENSTEIN, ROBERT S. The Life History of *Cooperia oncophora* (Railliet, 1898) Ransom, 1907, A Nematode Parasite of Cattle 235

ABADIE, STANLEY H. The Life Cycle of *Strongyloides ratti* 241

HALL, JOHN E., AND ALICE E. GROVES. Virgulate Xiphidiocercariae from *Nitocris dilatatus* Conrad 249

SOGANDARES-BERNAL, FRANKLIN, AND RICHARD DICK LUMSDEN. The Generic Status of the Heterophyid Trematodes of the *Ascocotyle* Complex, Including Notes on the Systematics and Biology of *Ascocotyle angrense* Travassos, 1916 264

ANDERSON, MARLOW G., AND FLORENCE M. ANDERSON. Life History of *Proterometra dickermani* Anderson, 1962 275

LUMSDEN, RICHARD D. *Saccocoelioides sogandaresi* sp. n., a New Haploporid Trematode from the Sailfin Molly *Mollienisia latipinna* Le Sueur in Texas 281

WAITZ, J. ALLAN. Glycolytic Enzymes of the Cestode *Hydatigera taeniaeformis* . . 285

MUELLER, JUSTUS F., EDWIN P. HART, AND WILLIAM P. WALSH. Human Sparganosis in the United States 294

DEWHIRST, L. W., J. D. CRAMER, AND W. J. PISTOR. Bovine Cysticercosis. I. Longevity of Cysticerci of *Taenia saginata* 297

GOLDSTEIN, R. J. A note On the Genus *Poecilancistrium* Dollfus, 1929 (Cestoda : Trypanorhyncha) 301

HOSSAIN, M. M., AND ARTHUR W. JONES. The Chromosomes of *Hymenolepis microstoma* (Dujardin 1845) 305

JEFFERY, GEOFFREY M., AND ANDREW J. HARRISON. Intestinal Parasitism in a Group of Mental Patients During Seven Years of Observation 308

ATCHLEY, F. O., A. H. AUERNHEIMER, AND MARION A. WASLEY. Precipitate Patterns in Agar Gel with Sera from Human Amebiasis and *Entamoeba histolytica* Antigen . 313

DUNN, FREDERICK L., AND FRANK L. LAMBRECHT. The Hosts of *Plasmodium brasilianum* Gonder and von Berenberg-Gossler, 1908 316

STABLER, ROBERT M., AND PORTIA A. HOLT. Hematozoa from Colorado Birds. I. Pigeons and Doves 320

NUTTING, WILLIAM B., AND HAROLD RAUCH. Distribution of *Demodex aurati* in the Host (*Mesocricetus auratus*) Skin Complex 323

LOOMIS, RICHARD B. The Discovery of Chiggers (Acarina, Trombiculidae) In the Nasal Passages of Cricetid Rodents from California, with Descriptions of Two New Species 330

RADOVSKY, F. J., AND C. E. YUNKER. Four New Species of *Steatonyssus* from Africa (Acarina : Dermanyssidae) 334

RAJAGOPALAN, P. K. *Haemaphysalis megalaimae* sp. n., A New Tick from the Small Green Barbet (*Megalaima viridis*) in India 340

HOOGSTRAAL, HARRY, AND HAROLD TRAPIDO. *Haemaphysalis silvafelis* sp. n., A Parasite of the Jungle Cat in Southern India (Ixodoidea, Ixodidae) 346

Research Notes

LINDQUIST, WILLIAM D. Early Infections of *Ascaridia columbae* and *Capillaria obsignata* in Squabs 208

MOOSE, JOHN W., AND JAMES E. WILLIAMS. Infectivity of Hybrid Snails Obtained from the Reciprocal Cross of *Oncomelania nosophora* and *O. formosana* to the Japanese Strain of *Schistosoma japonicum* 284

LESSER, ELLIOTT. Effect of Amphotericin-B on in vitro Growth of *Histomonas meleagridis* 329

KNAPP, S. E., AND J. N. SHAW. Occurrence of *Fascioloides magna* (Bassi) in Oregon Cattle and Deer 339

NADCHATRAM, M., AND GLEN M. KOHLS. Discovery of the Tick *Argas boueti* Roubaud and Colas-Belcour (Acarina : Argasidae) in Malaya 350

CRYAN, WILLIAM S. A Method for Axenizing Large Numbers of Nematodes . . . 351

NOBLE, GLENN A. Experimental Infection of Crabs with *Paragonimus* 352

JUNE 1963, NUMBER 3

CHERNIN, ELI. Observations on Hearts Explanted in vitro from the Snail *Australorbis glabratus* 353

PELLEGRINO, J., CELSO A. OLIVEIRA, AND JANE FARIA. The Oogram in the Study of Relapse in Experimental Chemotherapy of Schistosomiasis Mansoni 365

BROWNE, HARRY G., AND JOHN IVOR THOMAS. A Method for Isolating Pure, Viable Schistosome Eggs from Host Tissues 371

BAISDEN, L. A., AND F. G. TROMBA. DEAE–Cellulose Chromatography of Kidney Worm Antigens 375

WILLIAMS, J. S., R. E. DUXBURY, R. I. ANDERSON, AND E. H. SADUN. Fluorescent Antibody Reactions in *Trypanosoma rhodesiense* and *T. gambiense* in Experimental Animals 380

SADUN, E. H., R. E. DUXBURY, J. S. WILLIAMS, AND R. I. ANDERSON. Fluorescent Antibody Test for the Serodiagnosis of African and American Trypanosomiasis in Man 385

LEHMANN, DONALD L. Culture Forms of *Trypanosoma ranarum* (Lankester, 1871). IV. Influence of pH Upon Development of Cultures 389

SHERMAN, IRWIN W., AND GEORGE J. JACKSON. Zymograms of the Parasitic Nematodes, *Neoaplectana glaseri* and *N. carpocapsae*, Grown Axenically 392

GOODCHILD, CHAUNCEY G., AND THOMAS L. MOORE, JR. Development of *Hymenolepis diminuta* (Rudolphi, 1819) in Mice Made Obese by Aurothioglucose 398

LITCHFORD, R. G. Observations on *Hymenolepis microstoma* in Three Laboratory Hosts: *Mesocricetus auratus, Mus musculus,* and *Rattus norvegicus* 403

DOLL, JAMES P., AND COLIN K. FRANKER. Experimental Histomoniasis in Gnotobiotic Turkeys. I. Infection and Histopathology of the Bacteria-free Host 411

HAMMOND, DATUS M., FERRON L. ANDERSEN, AND MERTHYR L. MINER. The Site of the Immune Reaction Against *Eimeria bovis* in Calves 415

HSIEH, H. C., H. W. BROWN, E. R. CHEN, C. Y. CHEN, AND C. C. SHIH. Treatment of *Fasciolopsis buski, Ancylostoma duodenale, Ascaris lumbricoides, Trichuris trichiura,* and *Enterobius vermicularis* Infections with Stilbazium Iodide 425

HAMMOND, DATUS M., FERRON L. ANDERSEN, AND MERTHYR L. MINER. The Occurrence of a Second Asexual Generation in the Life Cycle of *Eimeria bovis* in Calves . . 428

GOLDBERG, AARON, AND JOHN T. LUCKER. Survival on Pasture of Larvae of Gastrointestinal Nematodes of Cattle. III. Fall Contamination 435

MANTER, HAROLD W. Studies on Digenetic Trematodes of Fishes of Fiji. III. Families Acanthocolpidae, Fellodistomatidae, and Cryptogonimidae 443

FISCHTHAL, JACOB H., AND ROBERT E. KUNTZ. Trematode Parasites of Fishes from Egypt. Part VII. *Orientocreadium batrachoides* Tubangui, 1931 (Plagiorchioidea) from *Clarias lazera*, with a Review of the Genus and Related Forms 451

FARLEY, J. A Redescription of *Gigantobilharzia lawayi* Brackett, 1942 465

RAI, S. L., AND S. M. AGARWAL. Morphological Variations in *Xenopharynx solus* Nicoll, 1912 and Their Bearing on the Systematics of the Genus *Xenopharynx* Nicoll, 1912 (Trematoda : Plagiorchiidae) 468

VAN DEN BERGHE, L., E. PEEL, AND M. CHARDOME. Two Sheathed Microfilariae in Animals from the Congo Basin Forest 471

GUILFORD, HARRY G. New Species of Myxosporidia Found in Percid Fishes from Green Bay (Lake Michigan) 474

RAUSCH, ROBERT L. *Schizorchis yamashitai* sp. n. (Cestoda : Anoplocephalidae) from the Northern Pika *Ochotona hyperborea* Pallas in Hokkaido 479

SCHMIDT, GERALD D. *Arhythmorhynchus capellae* sp. n. (Polymorphidae : Acanthocephala), A Parasite of the Common Snipe *Capella gallinago delicata* . . . 483

BAILEY, W. S., D. J. CABRERA, AND D. L. DIAMOND. Beetles of the Family Scarabaeidae as Intermediate Hosts for *Spirocerca lupi* 485

HOOGSTRAAL, HARRY, AND HAROLD TRAPIDO. *Haemaphysalis kutchensis* sp. n., a Common Larval and Nymphal Parasite of Birds in Northwestern India (Ixodoidea, Ixodidae) 489

NEWELL, IRWIN M. Feeding Habits in the Genus *Balaustium* (Acarina, Erythraeidae), with Special Reference to Attacks on Man 498

JAMESON, E. W., JR. Two New Species of *Eutalpacarus* (Acarina : Myobiidae) from Shrew-Moles (Mammalia : Talpidae) in Japan 503

MITCHELL, ROBERT W. Comparative Morphology of the Life Stages of the Nasal Mite *Rhinonyssus rhinolethrum* (Mesostigmata : Rhinonyssidae) 506

GOODING, R. H. Studies on the Effect of Frequency of Feeding Upon the Biology of a Rabbit-adapted Strain of *Pediculus humanus* 516

PRICE, ROGER D., AND JAMES R. BEER. *Nosopon clayae* sp. n. (Mallophaga : Menoponidae) from *Pernis apivorus* 522

Research Notes

BOURNS, T. K. R. A Method for Collecting Cercariae 370

THOMPSON, JAMES H. Human *Dipylidium caninum* Infection 402

FISHER, ROBERT L. *Capillaria hepatica* from the Rock Vole in New York 450

COLLINS, WILLIAM E., AND GEOFFREY M. JEFFERY. The Use of Dimethyl Sulfoxide in the Low-temperature Frozen Preservation of Experimental Malarias 524

TERBUSH, LEE E. Incidence of Nasal Mites in Different Age Classes of Herring Gulls (*Larus argentatus*) 525

WALTON, MAJOR BRYCE C., S/SGT. JESSE E. GLOVER, AND CAPT. ROBERT W. UPHAM, JR. Lack of *Dirofilaria immitis* Infection in Wild Foxes from an Enzootic Area . . . 526

CLIFFORD, CARLETON M., AND GLEN M. KOHLS. Observations on the Life Cycle of the Tick *Argas brevipes* Banks, 1908 527

CAMPBELL, W. C., AND A. C. CUCKLER. Efficacy of a 2-Phenyl Quinoline Against Experimental *Schistosoma mansoni* Infections in Mice and Monkeys 528

AUGUST 1963, NUMBER 4

MANSON-BAHR, P. E. C. Parasites and Parasitologists 529

DOUGLAS, LEE T. The Development of Organ Systems in Nematotaeniid Cestodes. III. Gametogenesis and Embryonic Development in *Baerietta diana* and *Distoichometra kozloffi* 530

PUTZ, ROBERT E., AND GLENN L. HOFFMAN. Two New *Gyrodactylus* (Trematoda : Monogenea) from Cyprinid Fishes with Synopsis of Those Found on North American Fishes 559

MEISENHELDER, JACK E., AND PAUL E. THOMPSON. Comparative Observations on Experimental *Schistosoma mansoni* Infections in African Green and Rhesus Monkeys 567

RITCHIE, LAWRENCE S., SEYMOUR GARSON, AND WILDA B. KNIGHT. The Biology of *Schistosoma mansoni* in Laboratory Rats 571

PRITCHARD, MARY HANSON. Studies on Digenetic Trematodes of Hawaiian Fishes, Primarily Families Lepocreadiidae and Zoogonidae 578

GOODCHILD, CHAUNCEY G., AND BERNARD FRIED. Experimental Infection of the Planorbid Snail *Menetus dilatatus buchanensis* (Lea) with *Spirorchis* sp. (Trematoda) . . 588

SOMMERVILLE, R. I. Distribution of Some Parasitic Nematodes in the Alimentary Tract of Sheep, Cattle, and Rabbits 593

LELAND, STANLEY E., JR. Studies on the in vitro Growth of Parasitic Nematodes. I. Complete or Partial Parasitic Development of Some Gastrointestinal Nematodes of Sheep and Cattle 600

SOKOLIĆ, A., M. JOVANOVIĆ, K. ČUPERLOVIĆ, M. MOVSESIJAN. Inhibition of Development of *Dictyocaulus filaria* as an Expression of Immunity Attained in Sheep . . . 612

LELAND, STANLEY E., JR. Studies on *Trichostrongylus axei* (Cobbold, 1879). VIII. Some Quantitative Aspects of Experimental Infection of the Mongolian Gerbil (*Meriones unguiculatus*) 617

HERLICH, HARRY, AND RICHARD S. MERKAL. Serological and Immunological Responses of Calves to Infection with *Trichostrongylus axei* 623

CAMPBELL, WILLIAM C. Spontaneous Cure in *Trichuris muris* Infections in Albino Mice and its Suppression by Cortisone 628

TROMBA, F. G., AND L. A. BAISDEN. Precipitins in Sera of Swine Infected with *Stephanurus dentatus* 633

JEFFERY, GEOFFREY M., EDWARD A. RONDEAU, ANDREW J. HARRISON, AND KENNETH O. PHIFER. Effect of Stilbazium Iodide on *Enterobius vermicularis* and Other Intestinal Helminths 639

ANDERSON, ROBERT I., ELVIO H. SADUN, AND MAURICE J. SCHOENBECHLER. Cholesterol–Lecithin Slide (TsSF) and Charcoal Card (TsCC) Flocculation Tests Using an Acid Soluble Fraction of *Trichinella spiralis* Larvae 642

FOX, IRVING. Detoxification of Molluscicide ICI 24223 by Free Chlorine and by Certain pH Levels 648

METTRICK, D. F., AND J. M. TELFORD. Histamine in the Phylum Plathyhelminthes . . 653

GARDINER, J. L., AND D. K. MCLOUGHLIN. Drug Resistance in *Eimeria tenella*. III. Stability of Resistance to Glycarbylamide 657

LEVINE, NORMAN D., AND VIRGINIA IVENS. *Eimeria siniffi* sp. n. and *E. arizonensis* (Protozoa : Eimeriidae) from Deermice in British Columbia 660

GOODING, RICHARD U., AND ARTHUR G. HUMES. External Anatomy of the Female *Haemobaphes cyclopterina*, a Copepod Parasite of Marine Fishes 663

TRAPIDO, HAROLD, HARRY HOOGSTRAAL, AND M. G. R. VARMA. Redescription of the Holotype and Description of All Stages of *Haemaphysalis turturis* Nuttall and Warburton from Ceylon and India (Ixodoidea, Ixodidae) 678

HOOGSTRAAL, HARRY, HAROLD TRAPIDO, AND M. J. REBELLO. *Haemaphysalis paraturturis* sp. n., a Carnivore Parasite of the *H. turturis* Group in India (Ixodoidea, Ixodidae) 686

TIDD, WILBER M., AND ROBERT J. SHIELDS. Tissue Damage Inflicted by *Lernaea cyprinacea* Linnæus, A Copepod Parasitic on Tadpoles 693

Research Notes

BERGER JACQUES. A New Echinoid Host for the Endozoic Hymenostome Ciliate, *Cryptochilidium polynucleatum* Nie, 1934, from Hong Kong 558

GREVE, J. H. *Cooperia mcmasteri* Gordon in Cattle from Iowa 622

HIBLER, CHARLES P., KAY S. SAMSON, AND REX W. ALLEN. *Dictyocaulus filaria* in Colorado and New Mexico Sheep 652

APODACA, S. A., W. P. MELENEY, AND H. O. PETERSON. Ecdysis Observed in Second Instar of *Oestrus ovis* Linnè, 1761, in vitro 659

BALCONI, I. RAUL. Species of *Eimeria* of Adult Cattle in Guatemala 662

TRAPIDO, HAROLD, AND HARRY HOOGSTRAAL. Status of *Haemaphysalis bispinosa* var. *intermedia* Warburton and Nuttall, 1909, Next Available Name for *H. parva* Neumann, 1908 (Preoccupied) (Ixodoidea, Ixodidae) 691

REYES, R. PÉREZ, AND E. LÓPEZ-OCHOTERENA. *Sphaerophrya sol* (Ciliata : Suctoria) Parasitic in Some Mexican Ciliates 697

SOMMERVILLE, R. I. Differential Growth of *Ostertagia* spp. in the Sheep's Abomasum . 698

RITCHIE, LAWRENCE S., JOSEPH H. TAUBR, AND TRUMAN W. EDWARDS. Survival of Laboratory-reared *Australorbis glabratus* Infected with *Schistosoma mansoni* . . 699

STEWART, T. BONNER. *Thominx phasianina* (Nematoda : Capillariidae) and other Nematodes from the Ring-neck Pheasant (*Phasianus colchicus*) in Illinois 701

MOOSE, JOHN W., AND JAMES E. WILLIAMS. Susceptibility of *Oncomelania formosana* from Three Different Areas of Taiwan to Infection with Formosan Strain of *Schistosoma japonicum* 702

OCTOBER 1963, NUMBER 5

HOPE, A. D. The King 705

CABLE, R. M., AND JANET LINDEROTH. Taxonomy of Some Acanthocephala from Marine Fishes with Reference to Species from Curaçao, N. A., and Jamaica, W. I. . . 706

DUNN, FREDERICK L. Acanthocephalans and Cestodes of South American Monkeys and Marmosets 717

MACKIEWICZ, JOHN S. *Monobothrium hunteri* sp. n. (Cestoidea : Caryophyllaeidae) from *Catostomus commersoni* (Lacépède) (Pisces : Catostomidae) in North America . 723

SELF, J. TEAGUE, LEWIS E. PETERS, AND CLARENCE E. DAVIS. The Egg, Miracidium, and Adult of *Nematobothrium texomensis* (Trematoda : Digenea) 731

HOFFMAN, GLENN L., AND CLARENCE E. DUNBAR. Studies on *Neogogatea kentuckiensis* (Cable, 1935) n. comb. (Trematoda : Strigeoidea : Cyathocotylidae) 737

METTRICK, DAVID F. A Statistical Analysis of the Morphological Variation Observed Between Populations of *Zonorchis petiolatum* (Railliet, 1900) [Trematoda : Dicrocoeliidae] from Different Hosts and Localities 745

MIZELLE, JOHN D. Studies on Monogenetic Trematodes. XXIV. A New Dactylogyrid Genus from *Acanthurus olivaceus* Bloch 752

MILLEMANN, RAYMOND E. Studies on the Taxonomy and Life History of Echinocephalid Worms (Nematoda : Spiruroidea) with a Complete Description of *Echinocephalus pseudouncinatus* Millemann, 1951 754

ASH, L. R., AND P. C. BEAVER. Redescription of *Ophidascaris labiatopapillosa* Walton, 1927, an Ascarid Parasite of North American Snakes 765

BURTON, GEORGE J. *Wuchereria bancrofti* and *Dirofilaria immitis* Larvae in Palpi and Antennae of Vector Mosquitoes 771

KAGAN, IRVING G. A Review of Immunologic Methods for the Diagnosis of Filariasis . 773

SHAH, HARISH L. Coccidia (Protozoa : Eimeriidae) of Domestic Sheep in the United States, with Descriptions of the Sporulated Oocysts of Six Species 799

WARREN, LIONEL G., AND WILLIAM B. KITZMAN. Metabolism of *Schizotrypanum cruzi* Chagas. II. Galactose Utilization 808

KOBAYASHI, AKIO, AND LEON JACOBS. The Effect of Irradiation on *Toxoplasma gondii* . 814

BEMRICK, WILLIAM J. A Comparison of Seven Compounds for Giardiacidal Activity in *Mus musculus* 819

CAMPBELL, WILLIAM C. Attempts to Demonstrate Immunity to *Schistosoma mansoni* in Mice Previously Subjected to Chemically Abbreviated Infections 824

HOOGSTRAAL, HARRY. Notes on African *Haemaphysalis* Ticks. V. Redescription and Relationships of *H. silacea* Robinson, 1912, from South Africa (Ixodoidea, Ixodidae) 830

HOOGSTRAAL, HARRY, AND HAROLD TRAPIDO. Redescription of Cotypes and All Stages of *Haemaphysalis intermedia* Warburton and Nuttall, 1909 (= *H. parva* Neumann, 1908, Preoccupied) from Ceylon and India (Ixodoidea, Ixodidae) 838

DANFORTH, CHARLES G. First Record of a Hawaiian Shore Bopyrid (Isopoda : Bopyridae) 847

ROSHDY, M. A. Comparative Internal Morphology of Subgenera of *Argas* Ticks (Ixodoidea, Argasidae). 3. Subgenus *Secretargas*: *Argas transgariepinus* White, 1846 . 851

KOHLS, GLEN M., AND CARLETON M. CLIFFORD. *Ornithodoros sparnus* sp. n., a Parasite of Wood Rats, *Neotoma* spp. and Deer Mice, *Peromyscus* spp. in Utah and Arizona (Acarina : Argasidae) 857

Research Notes

KELLOGG, STEPHEN J., AND ANDREW C. OLSON, JR. Some Factors Influencing the Infectivity of the Metacercariae of *Posthodiplostomum minimum* (Trematoda : Diplostomidae) 744

DUBEY, J. P., AND B. P. PANDE. On a Coccidian Schizont in the Indian Domestic Duck (*Anas platyrhynchos domesticus*) 770

MOOSE, JOHN W. Susceptibility of Young and Old *Oncomelania nosophora* to Infection with *Schistosoma japonicum* 813

HEALY, GEORGE R., AND NORMAN R. HAYES. Hydatid Disease in Rhesus Monkeys . . 837

BURNS, WILLIAM C. The Occurrence of *Levinseniella minuta* (Trematoda : Microphallidae) in Oregon 856

KILEJAN, ARAXIE. The Effect of Carbon Dioxide on Glycogenesis in *Moniliformis dubius* (Acanthocephala) 863

DECEMBER 1963, NUMBER 6

Symposium on Recent Advances in Simian Malaria

COATNEY, G. ROBERT. Introduction 865

EYLES, DON E. The Species of Simian Malaria: Taxonomy, Morphology, Life Cycle, and Geographical Distribution of the Monkey Species 866

BRAY, R. S. The Malaria Parasites of Anthropoid Apes 888

WARREN, MCWILSON, AND R. H. WHARTON. The Vectors of Simian Malaria: Identity, Biology, and Geographical Distribution 892

GARNHAM, P. C. C. Distribution of Simian Malaria Parasites in Various Hosts . 905

CONTACOS, PETER G., AND G. ROBERT COATNEY. Experimental Adaptation of Simian Malarias to Abnormal Hosts 912

COATNEY, G. ROBERT. Summary 919

JACOBS, RICHARD L., DAVID W. ALLING, AND WILLIAM F. CANTRELL. An Evaluation of Antimalarial Combinations Against *Plasmodium berghei* in the Mouse 920

YOELI, MEIR, RASMA S. UPMANIS, AND HARRY MOST. Gametogony and Sprogony in a Strain of *Plasmodium berghei* Preserved at Low Temperature 926

WALLS, KENNETH W., JOHN J. TARASKA, AND MORRIS GOLDMAN. Isolation of *Toxoplasma gondii* from Cysts in Human Brain 930

LUNDE, MILFORD N., AND LEON JACOBS. Toxoplasma Hemagglutination and Dye Test Antibodies in Experimentally Infected Rats 932

BERTKE, ELDRIDGE M. Renal Function During the Course of *Eimeria tenella* Infection . 937

SHARMA, N. N., AND JOHN W. FOSTER. Serology of *Eimeria tenella* Oocysts with Rabbit Serum 943

GARDINER, J. L., AND D. K. MCLOUGHLIN. Drug Resistance in *Eimeria tenella*. IV. The Experimental Development of a Nitrofurazone-Resistant Strain 947

WYATT, ELLIS J., AND IVAN PRATT. *Myxobolus insidiosus* sp. n., a Myxosporidian from the Musculature of *Oncorhynchus tshawytscha* (Walbaum) 951

BEMRICK, WILLIAM J. The Effect of Bile Flow on *Giardia duodenalis* race simoni in the Intestine of a Laboratory Strain of *Rattus norvegicus* 956

MEYER, MARVIN C., AND ROLF VIK. The Life Cycle of *Diphyllobothrium sebago* (Ward, 1910) 962

MEYER, MARVIN C., AND EDWARD S. ROBINSON. Description and Occurrence of *Diphyllobothrium sebago* (Ward, 1910) 969

PENNER, LAWRENCE R., AND BERNARD FRIED. *Philophthalmus hegeneri* sp. n., an Ocular Trematode from Birds 974

FRIED, BERNARD, AND LAWRENCE R. PENNER. Exposure of Chicks to the Metacercaria of *Philophthalmus hegeneri* Penner and Fried, 1963 978

FRIED, BERNARD. Reinfection of Chicks with an Ocular Trematode, *Philophthalmus hegeneri* Penner and Fried, 1963 981

VOGE, MARIETTA, AND ALLEN K. BERNTZEN. Asexual Multiplication of Larval Tapeworms as the Cause of Fatal Parasitic Ascites in Dogs 983

BOGITSH, BURTON J. Histochemical Studies on *Hymenolepis microstoma* (Cestoda : Hymenolepididae) 989

SHEFFIELD, HARLEY G. Electron Microscopy of the Bacillary Band and Stichosome of *Trichuris muris* and *T. vulpis* 998

COSGROVE, G. E., BILL M. NELSON, AND A. W. JONES. *Spirura tamarini* sp. n. (Nematoda : Spiruridae) from an Amazonian Primate, *Tamarinus nigricollis* (Spix, 1823) . 1010

HUANG, WEN-HSIEN, AND H. W. BROWN. The Efficacy of Thiabendazole Against Hookworm and Ascaris of Man 1014

HUNT, GEORGE R., AND ROBERT B. BURROWS. Stilbazium Iodide in the Mass Treatment of Mice Infected with *Syphacia obvelata* 1019

WAGNER, EDWARD D. The Single Dose Treatment of Enterobiasis with Stilbazium Iodide (Monopar) 1021

BECKLUND, WILLARD W. *Lamanema chavezi* gen. n., sp. n. and *Nematodirus lamae* sp. n. (Nematoda : Trichostrongylidae) from the Alpaca, *Lama pacos*, and the Vicuña, *Vicugna vicugna*, in Peru 1023

Research Notes

EYLES, DON E., AND MCWILSON WARREN. *Hepatocystis* from *Macaca irus* in Java . 891

MCLOUGHLIN, D. K. A Systematic Treatment for Bovine Trichomoniasis . . . 959

BURROWS, ROBERT B. Miniature Sieves and Transfer Containers 968

MCCUE, JOHN F., AND RALPH E. THORSON. A Rapid Method for Collecting Large Numbers of Intestinal Helminths 997

MIZELLE, J. D., AND C. E. PRICE. Additional Haptoral Hooks in the Genus *Dactylogyrus* . 1028

MACY, RALPH W. *Rutshurutrema acanthodes* Baer (Trematoda : Plagiorchiidae) from Egyptian Shrews 1029

BEMRICK, WILLIAM J. Observations on Dogs Infected with *Giardia* 1031

MCKEEVER, STURGIS. The Occurrence of *Moniliformis clarki* (Ward) (Acanthocephala : Moniliformidae) in California Mammals 1032

PITTS, THOMAS D. In vitro Cultivation of Newly Hatched Larvae of Ascaris from Man and Swine 1034

HAWKING, FRANK, THOMAS K. SAWYER, AND MICHAEL J. WORMS. Transport of *Dirofilaria immitis* Across the Atlantic and Successful Reimplantation Into Dogs . . . 1035

STONE, W. B., AND R. D. MANWELL. Viability of the Proliferative Form of Toxoplasma in Distilled Water 1036

EYLES, DON E., F. L. DUNN, MCWILSON WARREN, AND ELIZABETH GUINN. *Plasmodium coatneyi* from the Philippines 1038

INDEX FOR VOLUME 49, NUMBERS 1 TO 6

ABADIE, S. H. Life cycle of *Strongyloides ratti* 241
Acanthocephala from marine fishes of Curaçao and Jamaica 706
Acanthocephala, glucose metabolism in *Moniliformis* 862
Acanthocephala, glycogen content of *Moniliformis* 204
Acanthocephalans of South American monkeys and marmosets 717
Acanthocolpidae (Trematoda) from Fiji fishes 443
Acanthocolpus tenuis sp. n. (Trematoda) from ribbon fish 443
Afghanistan, *Hyalomma* ticks from, redescribed 130
AGARWAL, S. M. (see Rai) 468
Age of snail, effect on susceptibility to infection with *Schistosoma* 813
ALICATA, J. E., G. LOISON, and A. CAVALLO. Parasitic meningoencephalitis experimentally produced in a monkey with larvae of *Angiostrongylus cantonensis* 156
ALLEN, K. (see Graff) 204
ALLEN, R. W. (see Hibler et al.) 652
ALLING, D. W. (see Jacobs et al.) 920
Amebiasis, *E. histolytica*, agar gel precipitate patterns with human sera 313
American Society of Parasitologists
Amendments of Bylaws 172
Announcement—Henry Baldwin Ward Medal 176
Minutes, 37th General Business Meeting 171
Minutes, 52nd Council Meeting 162
Preliminary Announcement of 38th Meeting 176
Presentation of Henry Baldwin Ward Medal 161
Presidental address 3
Amphotericin-B, effect on *Histomonas meleagridis* 329
Ancylostoma duodenale, treatment with stilbazium iodide 425
ANDERSEN, F. L. (see Hammond et al.) 415
ANDERSEN, F. L. (see Hammond et al.) 428
ANDERSON, F. M. (see M. G. Anderson) 275
ANDERSON, M. G., and F. M. ANDERSON. Life history of *Proterometra dickermani* Anderson, 1962 275
ANDERSON, R. I., E. H. SADUN, and M. J. SCHOENBECHLER. Cholesterol–lecithin slide (TsSF) and charcoal card (TsCC) flocculation tests using an acid soluble fraction of *Trichinella spiralis* larvae 642
ANDERSON, R. I. (see Sadun et al.) 385
ANDERSON, R. I. (see Williams et al.) 380
Andreacarus petersi (Acarina) redescribed 125
Angiostrongylus cantonensis, cause of meningoencephalitis in experimental monkey 156
Announcement—Discontinuance of abstracts of research notes for Biological Abstracts 364
Announcement—Editorial acknowledgment, reviewers, volume 49 936
Announcement—First International Congress of Parasitologists 570
Announcement—First International Congress of Parasitologists 946
Announcement—New division of parasitology at University of California 345
Announcement—New Trematode Index 1018
Anthelmintic studies on rabbit trichostrongylid stomach worm 51
Anthelmintics, stilbazium iodide on *Enterobius vermicularis* and other intestinal helminths 639
Anthropoid apes, malaria parasites of 888
Antibodies, hemagglutination and dye test, in toxoplasma-infected rats 932
Antibody, fluorescent, in diagnosis of trypanosomiasis in man 385
Antibody, fluorescent, reactions in *Trypanosoma rhodesiense* and *T. gambiense* 380
Antigens, kidney worm, chromatography of 375
APODACA, S. A., W. P. MELENEY, and H. O. PETERSON. Ecdysis observed in second instar of *Oestrus ovis* Linnè, 1761, in vitro 659
Argas boueti, new record for, in Malaya 350
Argas brevipes (soft tick), life cycle of 527
Argas ticks, comparative internal morphology of *A. transgariepinus* 851
Arkansas, new locality for human sparganosis 154
Arythmorhynchus capellae sp. n. (Acanthocephala) from the common snipe 483
Ascaridia, early infections in squabs 208
Ascaris, cultivation in vitro of newly hatched larvae 1034
Ascaris in man, efficacy of thiabendazole against 1014
Ascaris lumbricoides, treatment with stilbazium iodide 425

Ascaris suum, cuticular lesions of ... 231
Ascaris suum larvae, in vitro survival and growth ... 64
Ascaris suum, uptake of vitamin B_{12} by ... 190
Ascites, parasitic, in dogs, caused by larval tapeworms ... 983
Ascocotyle complex of heterophyid trematodes ... 264
ASH, L. R., and P. C. BEAVER. Redescription of *Ophidascaris labiatopapillosa* Walton, 1927, an ascarid parasite of North American snakes ... 765
ATCHLEY, F. O., A. H. AUERNHEIMER, and M. A. WASLEY. Precipitate patterns in agar gel with sera from human amebiasis and *Entamoeba histolytica* antigen ... 313
AUERNHEIMER, A. H. (see Atchley et al.) ... 313
Australorbis glabratus, chemical attraction of miracidium to ... 114
Australorbis glabratus, infected with *Schistosoma mansoni*, survival of ... 699
Australorbis glabratus infected with *Schistosoma mansoni*, survival in the field ... 149
Australorbis glabratus, in vitro culture of explanted hearts ... 353
Axenic nematodes, new method for obtaining ... 351
BACHARACH, T. (see Walton) ... 35
Bacillary band in *Trichuris*, electron micrography of ... 998
Baerietta diana (Cestoda) gametogenesis and embryonic development in ... 530
BAERNSTEIN, H. D. A review of electron transport mechanisms in parasitic protozoa 12
BAILEY, W. S., D. J. CABRERA, and D. L. DIAMOND. Beetles of the family Scarabaeidae as intermediate hosts for *Spirocerca lupi* ... 485
BAISDEN, L. A., and F. G. TROMBA. Cellulose chromatography of kidney worm antigens ... 375
BAISDEN, L. A. (see Tromba) ... 633
Balaustium (Acarina), attacks on man ... 498
BALCONI, I. R. Species of *Eimeria* of adult cattle in Guatemala ... 662
BARBOSA, F. S. Survival in the field of *Australorbis glabratus* infected with *Schistosoma mansoni* ... 149
BEAVER, P. C. (see Ash) ... 765
Becker, Elery R.—In Memoriam ... 960
BECKLUND, W. W. *Lamanema chavezi* gen. n., sp. n. and *Nematodirus lamae* sp. n. (Nematoda : Trichostrongylidae) from the alpaca, *Lama pacos*, and the vicuña, *Vicugna vicugna*, in Peru ... 1023
BEER, J. R. (see Price) ... 522
Beetles as intermediate hosts of swine nematodes in Georgia ... 158
Beetles (Scarabaeidae) as intermediate hosts for *Spirocerca lupi* ... 485
BEMRICK, W. J. Comparison of seven compounds for giardiacidal activity in *Mus musculus* ... 819
BEMRICK, W. J. Observations on dogs infected with *Giardia* ... 1031
BEMRICK, W. J. The effect of bile flow on *Giardia duodenalis* race simoni in the intestine of a laboratory strain of *Rattus norvegicus* ... 956
BERGER, J. New echinoid host for ciliate, *Cryptochilidium polynucleatum* from Hong Kong ... 558
BERNTZEN, A. K. (see Voge) ... 983
BERRÍOS-DURÁN, L. A. (see Fox et al.) ... 648
BERTKE, E. M. Renal function during course of *Eimeria tenella* infection ... 937
Bile flow, effect on *Giardia* in the rat ... 956
BIZZELL, W. E. (see Ciordia) ... 60
BOGITSH, B. J. Histochemical studies on *Hymenolepis microstoma* (Cestoda : Hymenolepidae) ... 989
Book Reviews
Biology of Cestode Life Cycles by J. D. Smyth ... 864
Catalogue of Eimeriidea (Protozoa; Sporozoa) by Pellérdy ... 942
Cell Growth and Cell Division, Symposium, edited by R. J. C. Harris ... 638
Essentials of Medical Parasitology by T. J. Brooks, Jr. ... 1039
Internal Medicine in World War II, Vol. II, Infectious Diseases ... 704
Interpretation of Ultrastructure, Volume 1 of Symposia of the International Society for Cell Biology, edited by R. J. C. Harris ... 196
Parasitology Laboratory Manual by Stewart C. Schell ... 124
Patrick Manson by Sir Philip Manson-Bahr ... 54
Tropical Health—Needs and Resources. Publication 996, National Academy of Sciences ... 587
Bopyridae, first record of a Hawaiian shore form ... 847

BOURNS, T. K. R. A method for collecting cercariae 370
Bovine cysticercosis. I. Longevity of cysticerci of *Taenia saginata* 297
Bovine trichomoniasis, systemic treatment for 959
Brain, human, isolation of toxoplasma cysts from 930
BRAY, R. S. The malaria parasites of anthropoid apes 888
BRIGGS, N. T. Effects of cortisone treatment on natural resistance and acquired responses of the white rat to infection with *Litomosoides carinii* 225
BROWN, H. W. (see Hsieh et al.) 425
BROWN, H. W. (see Huang) 1014
BROWNE, H. G., and J. I. THOMAS. Method for isolating pure, viable schistosome eggs from host tissues 371
BURNS, W. C. Occurrence of *Levinseniella minuta* (Trematoda : Microphallidae) in Oregon 856
BURROWS, R. B. Miniature sieves and transfer containers 968
BURROWS, R. B. (see Hunt) 1019
BURTON, G. J. *Wuchereria bancrofti* and *Dirofilaria immitis* larvae in palpi and antennae of vector mosquitoes 771
BURTON, P. R. Uptake of radiosulphate by *Haematoloechus medioplexus* 121
CABLE, R. M., and JANET LINDEROTH. Taxonomy of some acanthocephala from marine fishes with reference to species from Curaçao, N. A., and Jamaica, W. I. 706
CABRERA, D. J. (see Bailey et al.) 485
Calves, immunologic response to *Trichostrongylus axei* 623
CAMPBELL, W. C. Attempts to demonstrate immunity to *Schistosoma mansoni* in mice previously subjected to chemically abbreviated infections 824
CAMPBELL, W. C. Efficacy of surface-active agents in stimulating the evagination of cysticerci in vitro 81
CAMPBELL, W. C. Spontaneous cure in *Trichuris muris* infections in albino mice and its suppression by cortisone 628
CAMPBELL, W. C., and A. C. CUCKLER. Efficacy of a 2-phenyl quinoline against experimental *Schistosoma mansoni* infections in mice and monkeys 528
CANTRELL, W. F. (see Jacobs et al.) 920
Capillaria, early infections in squabs 208
Capillaria hepatica from rock vole in New York 450
Caryophyllaeid, new species from common sucker 723
Cattle, distribution of parasitic nematodes in gut 593
Cattle gastrointestinal nematodes, in vitro culture of 600
Cattle gastrointestinal nematodes, survival of larvae on pasture 435
Cattle, Guatemala, *Eimeria* found in 662
Cattle, Iowa, *Cooperia mcmasteri* in 622
CAVALLO, A. (see Alicata et al.) 156
Cercariae, a method of collecting 370
Cercariae, comparison of *Plagiorchis muris* and *P. proximus* 84
Cercariae, virgulate xiphidioforms from *Nitocris* 249
Cestodes of South American monkeys and marmosets 717
Charcoal card flocculation test in trichinosis 642
CHARDOME, M. (see van den Berghe et al.) 471
Chemosensitivity of miracidium to snail 114
Chemotherapy, efficacy of 2-phenyl quinoline against schistosomiasis 528
Chemotherapy, evaluation of drug combinations against *P. berghei* 920
Chemotherapy of schistosomiasis, use of the oogram in studies on relapse 365
Chemotherapy of *Trypanosoma cruzi* in mice 22
Chemotherapy of various helminthiases with stilbazium iodide 425
CHEN, C. Y. (see Hsieh et al.) 425
CHEN, E. R. (see Hsieh et al.) 425
CHERNIN, E. Observations on hearts explanted in vitro from the snail *Australorbis glabratus* 353
Chiggers in nasal passages of cricetid rodents 330
Cholesterol–lecithin slide test in trichinosis 642
Chromatography of kidney worm antigens 375
Chromosomes of *Hymenolepis microstoma* 305
Ciliates, infected with *Sphaerophrya* sol in Mexico 697
CIORDIA, H., and W. E. BIZZELL. Effects of various constant temperatures on development of free-living stages of some nematode parasites of cattle 60

CLEELAND, R. Effects of different atmospheres and various supplements on in vitro survival and growth of *Ascaris suum* larvae ... 64
Cleithrarticus cleithrarticus sp. n. (Monogenea) from *Acanthurus* (fish) ... 752
CLIFFORD, C. M., and G. M. KOHLS. Observations on the life cycle of the tick *Argas brevipes* Banks, 1908 ... 527
CLIFFORD, C. M. (see Kohls) ... 857
CLIFFORD, C. M., and H. L. KEEGAN. Redescription of *Andreacarus petersi* Radford, 1953 (Acarina, Laelaptidae) and clarification of status of genus within subfamily Laelaptinae ... 125
Clonorchis sinensis, trace elements and polyphenol oxidase in ... 197
COATNEY, G. R. Symposium on recent advances in simian malaria. Introduction ... 865
COATNEY, G. R. Symposium on recent advances in simian malaria. Summary ... 919
COATNEY, G. R. (see Contacos) ... 912
Coccidia of domestic sheep in U. S., descriptions of sporulated oocysts ... 799
Coccidial infection, direct transmission in sheep ... 59
Coccidial oocysts, method for cleaning ... 159
Coccidian schizont in Indian domestic duck ... 770
Collecting intestinal helminths, rapid method for ... 997
COLLEY, F. C., and A. C. OLSON, JR. *Posthodiplostomum minimum* (Trematoda : Diplostomidae) in fishes of Lower Otay Reservoir, San Diego County, California 148
COLLINS, W. E., and G. M. JEFFERY. Use of dimethyl sulfoxide in low-temperature frozen preservation of experimental malarias ... 524
Colorado pigeons and doves, hematozoa of ... 320
CONTACOS, P. G., and G. R. COATNEY. Experimental adaptation of simian malarias to abnormal hosts ... 912
Cooperia mcmasteri in Iowa cattle ... 622
Cooperia oncophora, life history of ... 235
Copepods, parasitic, damage to tadpoles infected with *Lernaea* ... 693
Copepods, parasitic. External anatomy of *Haemobaphes* ... 663
Cortisone, effect on natural resistance of white rat to *Litomosoides* ... 225
Cortisone, effect on spontaneous cure of *Trichuris muris* in mice ... 628
COSGROVE, G. E., B. M. NELSON, and A. W. JONES. *Spirura tamarini* sp. n. (Nematoda : Spiruridae) from an Amazonian primate, *Tamarinus nigricollis* (Spix, 1823) ... 1010
COUCH, A. B., JR. Notes on biology of *Microlynchia pusilla* Speiser, a lousefly of mourning doves ... 140
Crabs, as hosts to *Paragonimus* ... 352
CRAMER, J. D. (see Dewhirst et al.) ... 297
CRANDALL, R. B. (see Moore et al.) ... 117
Crepidostomum illinoiense, excretory system and miracidium of ... 147
CROSS, J. H., JR. Sparganosis in two members of an Arkansas family ... 154
CRYAN, W. S. Method for axenizing large numbers of nematodes ... 351
Cryptochilidium polynucleatum (ciliate), new echinoid host for ... 558
Cryptogonimidae (Trematoda) from Fiji fishes ... 443
CUCKLER, A. C. (see Campbell) ... 528
Cultivation, in vitro, of newly hatched larvae of ascaris ... 1034
Culture, in vitro development of microfilariae of *Dirofilaria immitis* ... 218
Culture, in vitro, gastrointestinal nematodes of sheep and cattle ... 600
Culture, in vitro of explanted hearts of *Australorbis glabratus* ... 353
Culture of *Ascaris suum* larvae in vitro ... 64
Culture of *Trypanosoma ranarum*, influence of pH ... 389
ČUPERLOVIĆ, K. (see Sokolić et al.) ... 612
Cuticular lesions of *Ascaris* caused by *Pseudomonas* ... 231
Cyprinid fishes, new *Gyrodactylus* from ... 559
Cysticerci, evagination in vitro ... 81
Cysticerci of *Taenia solium* and *T. saginata*, comparison of structure ... 85
Cysticerci (*T. saginata*), longevity of ... 297
Dactylogyrid (Trematode), new species from *Acanthurus* ... 752
Dactylogyrus (Monogenea), additional haptoral hooks in ... 1028
DANFORTH, C. G. First record of a Hawaiian shore bopyrid (Isopoda : Bopyridae) ... 847
DAVIS, C. E. (see Self et al.) ... 731
DAVIS, L. R. (see Smith) ... 59
DECKER, C. L. (see Etges) ... 114
Deermouse in British Columbia, host for *Eimeria siniffi* ... 661

Demodex aurati (mite) in hamster skin complex 323
Deretrema acutum sp. n. from *Naso brevirostris* 581
Development of organ systems in cestodes 530
DEWHIRST, L. W., J. D. CRAMER, and W. J. PISTOR. Bovine cysticercosis. I. Longevity of cysticerci of *Taenia saginata* 297
Diagnosis, hydatid disease, slide latex test for 69
DIAMOND, D. L. (see Bailey et al.) 485
Dictyocaulus filaria in Colorado and New Mexico sheep 652
Dictyocaulus, vaccination against 177
Dictyocaulus vaccination in sheep, measure of immunity 612
Dimethyl sulfoxide, use in frozen preservation of malaria parasites 524
Diphyllobothrium sebago, description and occurrence 969
Diphyllobothrium sebago, life cycle 962
Dipylidium infection in man 402
Dirofilaria immitis, in vitro development to the sausage form 218
Dirofilaria immitis, lack of in wild foxes from an enzootic area 526
Dirofilaria immitis larvae in palpi and antennae of vector mosquitoes 771
Dirofilaria immitis, separation of microfilariae from blood 39
Dirofilaria immitis, transport in vitro and reimplantation into dogs 1035
Distoichometra kozloffi, gametogenesis and embryonic development in 530
Distribution of parasitic nematodes in alimentary tract of sheep, cattle, rabbits 593
Dogs, infected with *Giardia*, observations on 1031
Dogs, parasitic ascites in, caused by larval tapeworms 983
DOLL, J. P., and C. K. FRANKER. Experimental histomoniasis in gnotobiotic turkeys. I. Infection and histopathology of the bacteria-free host 411
DOUGLAS, L. T. Development of organ systems in nematotaeniid cestodes. III. Gametogenesis and embryonic development in *Baerietta diana* and *Distoichometra kozloffi* 530
Doves, hematozoa of in Colorado 320
DOWNS, W. G. The presence of *Trypanosoma cruzi* in the island of Trinidad, W. I. 50
Drug resistance of *Eimeria* to glycarbylamide 657
Drug resistance in *Eimeria tenella* to nitrofurazone 947
Dry lot vs. pasture rotation, effect on parasitism in lambs 209
DUBEY, J. P., and B. P. PANDE. Coccidian schizont in Indian domestic duck (*Anas platyrhynchos domesticus*) 770
DUDZINSKI, M. L., and R. MYKYTOWYCZ. Relationship between sex and age of rabbits, *Oryctolagus cuniculus* (L.) and infection with nematodes *Trichostrongylus retortaeformis* and *Graphidium strigosum* 55
DUNBAR, C. E. (see Hoffman) 737
DUNN, F. L. Acanthocephalans and cestodes of South American monkeys and marmosets 717
DUNN, F. L., and F. L. LAMBRECHT. Hosts of *Plasmodium brasilianum* Gonder and von Berenberg-Gossler, 1908 316
DUNN, F. L. (see Eyles et al.) 1038
DUXBURY, R. E. (see Sadun et al.) 385
DUXBURY, R. E. (see Williams et al.) 380
Ecdysis, of *Oestrus ovis*, observed in vitro 659
Echinocephalid worms (Nematoda, Spiruroidea), hosts and distribution (table) 762
Echinocephalus Molin, 1858 (Nematoda, Spiruroidea), emended description 762
Echinocephalus Molin, 1858 (Nematoda, Spiruroidea), key to species 763
Echinocephalus pseudouncinatus Milleman, 1951 (Nematoda, Spiruroidea), complete description 754
Echinocephalus uncinatus Molin, 1858 (Nematoda, Spiruroidea), redescription 761
Ecology of parasitism 529
EDWARDS, T. W. (see Ritchie et al.) 699
Eggs, schistosome, viable recovery from host tissues 371
Egypt, fish trematodes from 91
Egyptian fishes, trematode parasites of (*Orientocreadium* spp.) 451
Eimeria bovis in calves, second asexual generation 428
Eimeria bovis in calves, site of immune reaction 415
Eimeria in Guatemalan cattle 662
Eimeria siniffi sp. n. from *Peromyscus maniculatus* (deermouse) 661
Eimeria tenella, drug resistance in 657
Eimeria tenella, drug resistance to nitrofurazone 947
Eimeria tenella infection and renal function 937

Eimeria tenella oocysts, serology of with rabbit serum 943
Electron microscopy of *Trichuris* 998
Electron transport mechanisms in parasitic protozoa 12
Embryology of nematotaeniid cestodes 530
Entamoeba histolytica, agar gel precipitate patterns with human antisera 313
Enterobiasis, single dose treatment with stilbazium iodide 1021
Enterobius vermicularis, effect of stilbazium iodide on 639
Enterobius vermicularis, treatment with stilbazium iodide 425
ENTWISTLE, J. (see Hewitt et al.) 22
ENZIE, F. D. (see Lindahl et al.) 209
Enzymes, glycolytic, of the cestode *Hydatigera* 285
ETGES, F. J., and C. L. DECKER. Chemosensitivity of the miracidium of *Schistosoma mansoni* to *Australorbis glabratus* and other snails 114
Eutalpacarus (Acarina), key to species 505
Eutalpacarus himizu sp. n. (Acarina) from shrew-mole 503
Eutalpacarus inflatus sp. n. (Acarina) from shrew-mole 505
EYLES, D. E. Species of simian malaria: taxonomy, morphology, life cycle, and geographical distribution of monkey species 866
EYLES, D. E., and McW. WARREN. *Hepatocystis* from *Macaca irus* in Java 891
EYLES, D. E., F. L. DUNN, McW. WARREN, and ELIZABETH GUINN. *Plasmodium coatneyi* from the Philippines 1038
Eyles, Don E.—Obituary 911
FARIA, JANE. (see Pellegrino et al.) 365
FARLEY, J. Redescription of *Gigantobilharzia lawayi* Brackett, 1942 465
Fascioloides magna in Oregon cattle and deer 339
Fasciolopsis buski, treatment with stilbazium iodide 425
FELDMAN, H. A. (Book Review) Tropical Health—Needs and Resources 587
Fellodistomatidae (Trematoda) from Fiji fishes 443
Fijian fishes, digenetic trematodes of 443
Fiji, digenetic trematodes from fishes of 99
Filariasis, immunologic methods of diagnosis, review 773
FISCHTHAL, J. H., and R. E. KUNTZ. Trematode parasites of fishes from Egypt. Part V. Annotated record of some previously described forms 91
FISCHTHAL, J. H., and R. E. KUNTZ. Trematode parasites of fishes from Egypt. VII. *Orientocreadium batrachoides* Tubangui, 1931 (Plagiorchioidea) from *Clarias lazera*, with a review of the genus and related forms 451
FISHER, R. L. *Capillaria hepatica* from the rock vole in New York 450
Fish trematodes (Digenea) from Egypt 91
Fluorescent antibody in diagnosis of trypanosomiasis 385
FOSTER, J. W. (see Sharma) 943
FOSTER, J. W. (see Sharma et al.) 159
Foxes, lack of *Dirofilaria* infection in 526
FOX, I., L. A. BERRÍOS-DURÁN, L. P. FRICK, and L. S. RITCHIE. Detoxification of molluscicide ICI 24223 by free chlorine and by certain pH levels 648
FRANKER, C. K. (see Doll) 411
FRICK, L. P. (see Fox et al.) 648
FRIED, B. Reinfection of chicks with an ocular trematode, *Philophthalmus hegeneri* Penner and Fried, 1963 981
FRIED, B., and L. R. PENNER. Exposure of chicks to the metacercaria of *Philophthalmus hegeneri* Penner and Fried, 1963 978
FRIED, B. (see Goodchild) 588
FRIED, B. (see Penner) 974
Galactose utilization in *Schizotrypanum cruzi* 808
Gametogenesis in cestodes 530
Ganada barabankiae Fischthal and Kuntz, 1963, new comb. 458
Ganada hyderabadi Fischthal and Kuntz, 1963, new comb. 459
Ganada indica Fischthal and Kuntz, 1963, new comb. 460
Ganada (Trematoda), emended description 462
Ganadotrema macroni Fischthal and Kuntz, 1963, new comb. 461
GARDINER, J. L., and D. K. McLOUGHLIN. Drug resistance in *Eimeria tenella*. III. Stability of resistance to glycarbylamide 657
GARDINER, J. L., and D. K. McLOUGHLIN. Drug resistance in *Eimeria tenella*. IV. Experimental development of a nitrofurazone-resistant strain 947
GARNHAM, P. C. C. Distribution of simian malaria parasites in various hosts 905

GARSON, S. (see Ritchie et al.) 571
Giardia duodenalis, effect of bile flow on 956
Giardia, observations on dogs infected with 1031
Giardiacidal activity, comparison of seven compounds in the mouse 819
Giardiasis, chemotherapy of 819
Gigantobilharzia lawayi, from herring and Bonaparte's gulls, redescription 465
GILL, E. (see Hewitt et al.) 22
Gingrich, Wendell D.—Obituary 391
GLOVER, J. E. (see Walton et al.) 526
Glycarbylamide, drug resistance to, of *Eimeria tenella* 657
Glycogen content in *Moniliformis* (Acanthocephala) 204
Glycogenesis in *Moniliformis* (Acanthocephala), effect of CO_2 862
Glycolytic enzymes of *Hydatigera* (Cestode) 285
Gnotobiotic turkeys, histopathology of histomoniasis in 411
GODWIN, H. J. (see Stewart) 231
GOLDBERG, A., and J. T. LUCKER. Survival on pasture of larvae of gastrointestinal nematodes of cattle. III. Fall contamination 435
GOLDMAN, M. (see Walls et al.) 930
GOLDSTEIN, R. J. A note on the genus *Poecilancistrium* Dollfus, 1929 (Cestoda: Trypanorhyncha) 301
GOODCHILD, C. G., and B. FRIED. Experimental infection of snail *Menetus dilatatus buchanensis* (Lea) with *Spirorchis* sp. (Trematoda) 588
GOODCHILD, C. G., and T. L. MOORE, JR. Development of *Hymenolepis diminuta* (Rudolphi, 1819) in mice made obese by aurothioglucose 398
GOODING, R. H. Effect of frequency of feeding upon biology of a rabbit-adapted strain of *Pediculus humanus* 516
GOODING, R. U., and A. G. HUMES. External anatomy of the female *Haemobaphes cyclopterina*, a copepod parasite of marine fishes 663
Gorgorhynchoides elongatus sp. n. (Acanthocephala) from marine fish, Curaçao 715
Gorgorhynchoides, new genus, additional characteristics of 716
GRAFF, D., and K. ALLEN. Glycogen content in *Moniliformis dubius* (Acanthocephala) 204
Graphidium strigosum (Nematoda) in the rabbit 55
GREVE, J. H. *Cooperia mcmasteri* Gordon in cattle from Iowa 622
GROVES, A. E. (see Hall) 249
Growth rate of mice increased by trypanosome infection 31
Guatemalan cattle, *Eimeria* found in 662
GUILFORD, H. G. New species of Myxosporidia found in percid fishes from Green Bay (Lake Michigan) 474
GUINN, ELIZABETH (see Eyles et al.) 1038
Gyrodactylus atratuli sp. n. from *Rhinichthys* and *Semotilus* 561
Gyrodactylus margaritae sp. n. from *Semotilus margarita* 561
Gyrodactylus, new species from cyprinid fishes 559
Gyrodactylus, synopsis of forms found on North American fishes 565
Haemaphysalis bispinosa var. *intermedia* Warburton and Nuttall, 1909, status of 691
Haemaphysalis intermedia Warburton and Nuttall, 1909, redescription 838
Haemaphysalis kutchensis sp. n. (Ixodidae), from birds in northwestern India 489
Haemaphysalis megalaimae, new tick from India 340
Haemaphysalis paraturturis sp. n. from Indian carnivores 686
Haemaphysalis silacea Robinson, 1912, redescription and relationships of 830
Haemaphysalis silvafelis, new tick from jungle cat, India 346
Haemaphysalis turturis, redescription of 678
Haematoloechus medioplexus, uptake of radiosulphate 121
Haemobaphes cyclopterina (parasitic copepod), external anatomy of female 663
HALL, J. E., and A. E. GROVES. Virgulate xiphidiocercariae from *Nitocris dilatatus* Conrad 249
HAMMOND, D. M. (Book Review) Catalogue of Eimeriidea (Protozoa; Sporozoa) 942
HAMMOND, D. M., F. L. ANDERSEN, and M. L. MINER. Occurrence of second asexual generation in life cycle of *Eimeria bovis* in calves 428
HAMMOND, D. M., F. L. ANDERSEN, and M. L. MINER. Site of immune reaction against *Eimeria bovis* in calves 415
Hamster, *Demodex* in skin complex 323
HARRISON, A. J. (see Jeffery) 308
HARRISON, A. J. (see Jeffery et al.) 639
HART, E. P. (see Mueller et al.) 294

Hawaiian fishes, trematodes of 578
HAWKING, F., T. K. SAWYER, and M. J. WORMS. Transport of *Dirofilaria immitis* across the Atlantic and successful reimplantation into dogs 1035
HAYES, N. R. (see Healy) 837
HEALY, G. R., and N. R. HAYES. Hydatid disease in rhesus monkeys 837
Helisoma antrosum, snail host of *Wardius zibethicus* (Trematoda) 116
Hemagglutination antibodies in toxoplasma-infected rats 932
Hematozoa from Colorado columbiform birds 320
Henneguya doori sp. n. (Myxosporidia) from *Perca flavescens* 478
Hepatocystis from *Macaca irus* in Java 891
HERLICH, H., and R. S. MERKAL. Serological and immunological responses of calves to infection with *Trichostrongylus axei* 623
Herring gulls (*Larus argentatus*), incidence of nasal mites in 525
Heterophyid trematodes, the *Ascocotyle* complex 264
HIBLER, C. P., KAY S. SAMSON, and R. W. ALLEN. *Dictyocaulus filaria* in Colorado and New Mexico sheep 652
HEWITT, R., J. ENTWISTLE, and E. GILL. Quantitative determinations of critical mortality periods in untreated and treated infections with the B strain of *Trypanosoma cruzi* in mice 22
Histamine in phylum Platyhelminthes 653
Histochemistry of *Hydatigera taeniaeformis* (Cestoda) 73
Histochemistry of *Hymenolepis microstoma* 989
Histomonas meleagridis, in vitro effect of amphotericin-B on growth 329
Histomoniasis in gnotobiotic turkeys 411
HOFFMAN, G. L., and C. E. DUNBAR. Studies on *Neogogatea kentuckiensis* (Cable, 1935) n. comb. (Trematoda : Strigeoidea : Cyathocotylidae) 737
HOFFMAN, G. L. (see Putz) 559
HOLT, P. A. (see Stabler) 320
HOOGSTRAAL, H. Notes on African *Haemaphysalis* ticks. V. Redescription and relationships of *H. silacea* Robinson, 1912, from South Africa (Ixodoidea, Ixodidae) 830
HOOGSTRAAL, H. (see Kaiser) 130
HOOGSTRAAL, H., and H. TRAPIDO. *Haemaphysalis kutchensis* sp. n., a common larval and nymphal parasite of birds in northwestern India (Ixodoidea, Ixodidae) 489
HOOGSTRAAL, H., and H. TRAPIDO. *Haemaphysalis silvafelis* sp. n., a parasite of the jungle cat in southern India (Ixodoidea, Ixodidae) 346
HOOGSTRAAL, H., and H. TRAPIDO. Redescription of cotypes and all stages of *Haemaphysalis intermedia* Warburton and Nuttall, 1909 (= *H. parva* Neumann, 1908, preoccupied) from Ceylon and India (Ixodoidea, Ixodidae) 838
HOOGSTRAAL, H., H. TRAPIDO, and M. J. REBELLO. *Haemaphysalis paraturturis* sp. n., a carnivore parasite of the *H. turturis* group in India (Ixodoidea, Ixodidae) 686
HOOGSTRAAL, H. (see Trapido et al.) 678
Hookworm in man, efficacy of thiabendazole against 1014
HOPE, A. D. The King (poem) 705
HOSSAIN, M. M., and A. W. JONES. Chromosomes of *Hymenolepis microstoma* (Dujardin 1845) 305
HSIEH, H. C., H. W. BROWN, E. R. CHEN, C. Y. CHEN, and C. C. SHIH. Treatment of *Fasciolopsis buski, Ancylostoma duodenale, Ascaris lumbricoides, Trichuris trichiura,* and *Enterobius vermicularis* infections with stilbazium iodide 425
HUANG, W.-H., and H. W. BROWN. Efficacy of thiabendazole against hookworm and ascaris of man 1014
Human sparganosis in the United States 294
HUMES, A. G. (see Gooding) 663
HUNT, G. R., and R. B. BURROWS. Stilbazium iodide in mass treatment of mice infected with *Syphacia obvelata* 1019
HUNTER, G. W., III. (see Moore et al.) 117
Hyalomma ticks of Afghanistan, redescriptions of 130
Hydatid disease in rhesus monkeys 837
Hydatid disease, slide latex test for 69
Hydatigera taeniaeformis, glycolytic enzymes of 285
Hydatigera taeniaeformis, histochemical studies on 73
Hymenolepis diminuta, development in obese mice 398
Hymenolepis microstoma, chromosomes of 305
Hymenolepis microstoma, histochemical studies on 989
Hymenolepis microstoma in laboratory hosts 403

Hymenolepis microstoma, sensitivity of cysticercoids to high temperature stress 152
Illiosentis ctenorhynchus sp. n. (Acanthocephala) from marine fish, Jamaica, W. I. 713
Illiosentis heteracanthus sp. n. (Acanthocephala) from marine fishes, Curaçao 711
Illiosentis longispinus sp. n. (Acanthocephala) from marine fish, Jamaica, W. I. 711
Illiosentis Van Cleave and Lincicome, 1939, emended description 711
Immune reaction, site of, in calves with *Eimeria bovis* 415
Immunity, agar gel precipitate patterns with *E. histolytica* antigen 313
Immunity, *Schistosoma mansoni*, significance of eggs in tissues 117
Immunity to *Dictyocaulus*, obtained by vaccination of sheep 612
Immunity to intracellular parasites 3
Immunity to *Schistosoma mansoni* in mice subjected to chemically abbreviated infections 824
Immunity, vaccination against parasitic disease 177
Immunologic methods of diagnosing filariasis, review 773
Immunologic response of calves to *Trichostrongylus axei* 623
In Memoriam—Elery R. Becker 960
Intestinal parasitism, 7 years study in a group of mental patients 308
In vitro culture of ruminant nematodes 600
In vitro development of microfilariae of dog heartworm 218
Iowa cattle, *Cooperia mcmasteri* in 622
Irradiation, effect on toxoplasma 814
ISENSTEIN, R. S. Life history of *Cooperia oncophora* (Railliet, 1898) Ransom, 1907, a nematode parasite of cattle 235
IVENS, VIRGINIA. (see Levine) 660
JACKSON, G. J. (see Sherman) 392
JACOBS, L. (see Kobayashi) 814
JACOBS, L. (see Lunde) 932
JACOBS, R. L., D. W. ALLING, and W. F. CANTRELL. An evaluation of antimalarial combinations against *Plasmodium berghei* in the mouse 920
JAMESON, E. W., JR. Two new species of *Eutalpacarus* (Acarina : Myobiidae) from shrew-moles (Mammalia : Talpidae) in Japan 503
JARRETT, W. F. H., and N. C. C. SHARP. Vaccination against parasitic disease: Reactions in vaccinated and immune hosts in *Dictyocaulus viviparus* infection 177
JEFFERY, G. M., and A. J. HARRISON. Intestinal parasitism in a group of mental patients during 7 years observation 308
JEFFERY, G. M., E. A. RONDEAU, A. J. HARRISON, and K. O. PHIFER. Effect of stilbazium iodide on *Enterobius vermicularis* and other intestinal helminths 639
JEFFERY, G. M. (see Collins) 524
JONES, A. W. (see Cosgrove et al.) 1010
JONES, A. W. (see Hossain) 305
JOVANOVIĆ, M. (see Sokolić et al.) 612
KAGAN, I. G. Review of immunologic methods for diagnosis of filariasis 773
KAGAN, I. G. (see Szyfres) 69
KAISER, M. N., and H. HOOGSTRAAL. The *Hyalomma* ticks (Ixodoidea, Ixodidae) of Afghanistan 130
KATES, K. C. (see Lindahl et al.) 209
KEEGAN, H. L. (see Clifford) 125
KELLOGG, S. J., and A. C. OLSON, JR. Factors influencing infectivity of metacercariae of *Posthodiplostomum minimum* (Trematoda : Diplostomidae) 744
KENT, K. M. (see Stewart) 158
Key to monkey malarias 866
Key to species of *Echinocephalus* (Nematoda) 763
Key to species of *Eutalpacarus* (Acarina) 505
Kidney worm antigens, chromatography of 375
KILEJAN, A. Effect of carbon dioxide on glycogenesis in *Moniliformis dubius* (Acanthocephala) 862
King (of parasites), poem 705
KITZMAN, W. B. (see Warren) 808
KNAPP, S. E., and J. N. SHAW. Occurrence of *Fascioloides magna* (Bassi) in Oregon cattle and deer 339
KNIGHT, WILDA B. (see Ritchie et al.) 571
KOBAYASHI, A., and L. JACOBS. Effect of irradiation on *Toxoplasma gondii* 814
KOHLS, G. M. (see Clifford) 527
KOHLS, G. M. (see Nadchatram) 350

KOHLS, G. M., and C. M. CLIFFORD. *Ornithodoros sparnus* sp. n., a parasite of wood rats, *Neotoma* spp. and deer mice, *Peromyscus* spp. in Utah and Arizona (Acarina : Argasidae) 857
KUNTZ, R. E. (see Fischthal) 91
KUNTZ, R. E. (see Fischthal) 451
Lamanema chavezi gen. n., sp. n. from alpaca and vicuña 1023
LAMBRECHT, F. L. (see Dunn) 316
Lambs, effect of management systems on development of internal parasitism in 209
LANG, B. Z. Comparison of the xiphidiocercariae of *Plagiorchis muris* and *P. proximus* (Trematoda : Plagiorchiidae) 84
Larval nematodes, gastrointestinal, of cattle, survival on pasture 435
LEHMANN, D. L. Cultural forms of *Trypanosoma ranarum* (Lankester, 1871). IV. Influence of pH upon development of cultures 389
LELAND, S. E., JR. Studies on in vitro growth of parasitic nematodes. I. Complete or partial parasitic development of some gastrointestinal nematodes of sheep and cattle 600
LELAND, S. E., JR. Studies on *Trichostrongylus axei* (Cobbold, 1879). VIII. Some quantitative aspects of experimental infection of the Mongolian gerbil (*Meriones unguiculatus*) 617
Lepocreadiidae (Trematoda, Digenea) in Fiji fishes 99
Lernaea cyprinacea (parasitic copepod), tissue damage inflicted by 693
LESSER, E. Effect of amphotericin-B on in vitro growth of *Histomonas meleagridis* 329
LEVINE, N. D., and VIRGINIA IVENS. *Eimeria siniffi* sp. n. and *E. arizonensis* (Protozoa : Eimeriidae) from deermice in British Columbia 660
Levinseniella minuta (Trematoda), occurrence in Oregon 856
Life cycle of *Diphyllobothrium sebago* 962
Life cycle of *Strongyloides ratti* 241
Life history of *Cooperia oncophora* 235
Life history of *Proterometra dickermani* (trematode) 275
LINCICOME, D. R., and JACQUELINE SHEPPERSON. Increased rate of growth of mice infected with *Trypanosoma duttoni* 31
LINDAHL, I. L., K. C. KATES, J. H. TURNER, F. D. ENZIE, and G. E. WHITMORE. Effect of management systems on the growth of lambs and development of internal parasitism. I. Dry lot vs. two pasture rotation systems 209
LINDEROTH, JANET (see Cable) 706
LINDQUIST, W. D. Early infections of *Ascaridia columbae* and *Capillaria obsignata* in squabs 208
LITCHFORD, R. G. Observations on *Hymenolepis microstoma* in *Mesocricetus auratus*, *Mus musculus*, and *Rattus norvegicus* 403
Litomosoides carinii, natural resistance in the white rat 225
LOISON, G. (see Alicata et al.) 156
Longevity of bovine cysticerci (*T. saginata*) 297
LOOMIS, R. B. Discovery of chiggers (Acarina, Trombiculidae) in nasal passages of cricetid rodents from California, with descriptions of two new species 330
LÓPEZ-OCHOTERENA, E. (see Pérez Reyes) 697
Louse, human, effect of frequency of feeding upon 516
Lousefly of mourning dove, biology of *Microlynchia* 140
Low temperature preservation of *P. berghei*, gametogony and sporogony in 926
LUCKER, J. T. (see Goldberg) 435
LUMSDEN, R. D. *Saccocoelioides sogandaresi* sp. n., a new haploporid trematode from the sailfin molly *Mollienisia latipinna* Le Sueur in Texas 281
LUMSDEN, R. D. (see Sogandares-Bernal) 264
LUNDE, M. N., and L. JACOBS. Toxoplasma hemagglutination and dye test antibodies in experimentally infected rats 932
LUTTERMOSER, G. W. Infection of rodents with *Schistosoma mansoni* by ingestion of infected snails 150
McCUE, J. F., and R. E. THORSON. Rapid method for collecting large numbers of intestinal helminths 997
McDANIEL, B. (see Strandtmann et al.) 38
McKEEVER, S. The occurrence of *Moniliformis clarki* (Ward) (Acanthocephala: Moniliformidae) in California mammals 1032
McLOUGHLIN, D. K. A systemic treatment for bovine trichomoniasis 959
McLOUGHLIN, D. K. (see Gardiner) 657
McLOUGHLIN, D. K. (see Gardiner) 947

MA, L. Trace elements and polyphenol oxidase in *Clonorchis sinensis* 197
Macaca irus, Hepatocystis from 891
MACKIEWICZ, J. S. *Monobothrium hunteri* sp. n. (Cestoidea : Caryophyllaeidae) from *Catostomus commersoni* (Lacépède) (Pisces: Catostomidae) in North America 723
MACY, R. W. *Rutshurutrema acanthodes* Baer (Trematoda : Plagiorchiidae) from Egyptian shrews 1029
Malaria, evaluation of antimalarial combinations in *P. berghei* 920
Malaria, hosts of *Plasmodium brasilianum* 316
Malaria, life cycle of simian species 866
Malaria parasites, dimethyl sulfoxide in low temperature preservation of 524
Malaria parasites of anthropoid apes 888
Malaria, simian, distribution of parasites in various hosts 905
Malaria, simian, experimental adaptation to abnormal hosts 912
Malaria, simian, key to species 866
Malaria, simian, species of 866
Mallophaga, new biting louse from honey buzzard 522
MANSON-BAHR, P. E. C. Parasites and parasitologists 529
MANTER, H. W. Studies on digenetic trematodes of fishes of Fiji. II. Families Lepocreadiidae, Opistholebetidae, and Opecoelidae 99
MANTER, H. W. Studies on digenetic trematodes of fishes of Fiji. III. Families Acanthocolpidae, Fellodistomatidae, and Cryptogonimidae 443
MANWELL, R. D. (see Stone) 1036
Marine fishes, acanthocephala from 706
Marmosets, South American, parasites of 717
MARTIN, W. E. (see Zam et al.) 190
MATTHIAS, D. V. Helminths of some waterfowl from western Nevada and northeastern California 155
MEISENHELDER, J. E., and P. E. THOMPSON. Comparative observations on experimental *Schistosoma mansoni* infections in African green and rhesus monkeys 567
MELENEY, W. P. (see Apodaca et al.) 659
Menetus (planorbid snail), experimental infection with *Spirorchis* 588
Mental patients, intestinal parasitism in, 7 years observation 308
MERKAL, R. S. (see Herlich) 623
Metabolism of *Schizotrypanum cruzi* 808
METTRICK, D. F. Statistical analysis of morphological variation observed between populations of *Zonorchis petiolatum* (Railliet, 1900) [Trematoda : Dicrocoeliidae] from different hosts and localities 745
METTRICK, D. F., and J. M. TELFORD. Histamine in the phylum Platyhelminthes 653
MEYER, M. C., and E. S. ROBINSON. Description and occurrence of *Diphyllobothrium sebago* (Ward, 1910) 969
MEYER, M. C., and R. VIK. Life cycle of *Diphyllobothrium sebago* (Ward, 1910) 962
Mice, infected with *Syphacia obvelata*, mass treatment with stilbazium iodide 1019
Microfilaria aonycis from giant African otter 471
Microfilariae from lemur and otter, Congo Basin 471
Microfilariae, in vitro development of *Dirofilaria* 218
Microfilariae of *Dirofilaria immitis*, separation from blood 39
Microfilaria perodictici from African arboreal lemur 471
Microlynchia pusilla, lousefly of mourning dove, biology of 140
MILLEMANN, R. E. Taxonomy and life history of echinocephalid worms (Nematoda: Spiruroidea) with complete description of *Echinocephalus pseudouncinatus* Millemann, 1951 754
MILLER, J. H. (Book Review) The Interpretation of Ultrastructure 196
MINER, M. L. (see Hammond et al.) 415
MINER, M. L. (see Hammond et al.) 428
Miniature sieves and transfer containers 968
Miracidium of *Crepidostomum illinoiense* 147
Miracidium of *Schistosoma mansoni*, chemosensitivity to snails 114
MITCHELL, R. W. Comparative morphology of life stages of nasal mite *Rhinonyssus rhinolethrum* (Mesostigmata : Rhinonyssidae) 506
Mites (*Balaustium*) attacking man 498
Mites, *Demodex aurati* in the hamster 323
Mites, new species of *Steatonyssus* from Africa 334
Mitotrema anthostomatum gen. n., sp. n. from rock cod 449

MIZELLE, J. D. Studies on monogenetic trematodes. XXIV. New dactylogyrid genus from *Acanthurus olivaceus* Bloch ... 752
MIZELLE, J. D., and C. E. PRICE. Additional haptoral hooks in *Dactylogyrus* ... 1028
Molluscicide ICI 24223, detoxification of by chlorine and pH ... 648
Mongolian gerbil, experimental host for *Trichostrongylus axei* ... 617
Moniliformis (Acanthocephala), glycogen content in ... 204
Moniliformis clarki (Acanthocephala), occurrence in California mammals ... 1032
Moniliformis dubius (Acanthocephala), effect of CO_2 on glycogenesis in ... 862
Monkey malarias, new host records ... 316
Monkeys, African green and rhesus, as hosts for *Schistosoma* ... 567
Monkeys, rhesus, hydatid disease in ... 837
Monkeys, South American, parasites of ... 717
Monobothrium hunteri sp. n. (Cestoda) from common sucker in North America ... 723
Monogenetic trematodes, new dactylogyrid from *Acanthurus* ... 752
Monopar (see stilbazium iodide) ... 1021
MOORE, D. V., R. B. CRANDALL, and G. W. HUNTER III. Studies on schistosomiasis. XX. Further studies on the immunogenic significance of *Schistosoma mansoni* eggs in albino mice when subjected to homologous challenge ... 117
MOORE, T. L., JR. (see Goodchild) ... 398
MOOSE, J. W. Growth inhibition of young *Oncomelania nosophora* exposed to *Schistosoma japonicum* ... 151
MOOSE, J. W. Susceptibility of young and old *Oncomelania nosophora* to infection with *Schistosoma japonicum* ... 813
MOOSE, J. W., and J. E. WILLIAMS. Infectivity of hybrid snails obtained from the reciprocal cross of *Oncomelania nosophora* and *O. formosana* to the Japanese strain of *Schistosoma japonicum* ... 284
MOOSE, J. W., and J. E. WILLIAMS. Susceptibility of *Oncomelania formosana* from three different areas of Taiwan to infection with Formosan strain of *Schistosoma japonicum* ... 702
Morphological variation in *Zonorchis* (Trematoda), statistical analysis of ... 745
MOST, H. (see Yoeli et al.) ... 926
Mouse, *Mus musculus*, comparison of giardiacides in ... 819
MOVSESIJAN, M. (see Sokolić et al.) ... 612
MUELLER, J. F. (Book Review) Internal Medicine in World War II, Vol. II. Infectious Diseases ... 704
MUELLER, J. F. (Book Review) Parasitology Laboratory Manual ... 124
MUELLER, J. F. (Book Review) Patrick Manson ... 54
MUELLER, J. F. (Book Review) The Biology of Cestode Life Cycles ... 864
MUELLER, J. F., E. P. HART, and W. P. WALSH. Human sparganosis in the United States ... 294
MURRELL, K. D. *Helisoma antrosum*, first intermediate host for *Wardius zibethicus* Barker and East, 1915 (Trematoda: Paramphistomidae) ... 116
MYKYTOWYCZ, R. (see Dudzinski) ... 55
Myxobolus insidiosus sp. n. (Myxosporidia) from *Oncorhynchus* (fish) ... 951
Myxosoma neurophila sp. n. (Myxosporidia) from percid fishes ... 474
Myxosoma scleroperca sp. n. (Myxosporidia) from percid fishes ... 475
Myxosporidia, new species from percid fishes ... 474
NADCHATRAM, M., and G. M. KOHLS. Discovery of the tick *Argas boueti* Roubaud and Colas-Belcour (Acarina : Argasidae) in Malaya ... 350
Nasal mite (*Rhinonyssus*), morphology of life stages ... 506
Nasal mites (chiggers) in cricetid rodents ... 330
Nasal mites, incidence in age classes of herring gulls ... 525
NELSON, B. M. (see Cosgrove et al.) ... 1010
Nematobothrium texomensis (Trematoda) in buffalo fish, description of egg, miracidium, and adult ... 731
Nematode parasites of cattle, effect of constant temperatures on development of free-living stages ... 60
Nematode parasites of rabbits, correlation with sex and age of host ... 55
Nematodes, gastrointestinal, of cattle, survival of larvae ... 435
Nematodes, new method of axenizing ... 351
Nematodes of sheep and cattle, culture in vitro ... 600
Nematodes (parasitic), distribution of, in alimentary canal of sheep, cattle, and rabbits ... 593
Nematodirus lamae sp. n. (Nematoda) from alpaca and vicuña ... 1025
Nematotaeniid cestodes, development of organ systems in ... 530

Neoaplectana, zymograms of 392
Neoganada (Trematoda), as synonym of *Ganada* 458
Neogogatea (Chandler and Rausch, 1947) (Trematoda), emended description 743
Neogogatea kentuckiensis (Trematoda : Strigeoidea), life history of 737
New combinations
Ganada barabankiae Fischthal and Kuntz, 1963 458
Ganada hyderabadi Fischthal and Kuntz, 1963 459
Ganada indica Fischthal and Kuntz, 1963 460
Ganadotrema macroni Fischthal and Kuntz, 1963 461
Hyalomma marginatum isaaci Kaiser and Hoogstraal, 1963 138
Neogogatea kentuckiensis Hoffman and Dunbar, 1963 737
Paracryptogonimus leilae Manter, 1963 449
NEWELL, I. M. Feeding habits in the genus *Balaustium* (Acarina, Erythraeidae), with special reference to attacks on man 498
New genera (indicated *) and new species
Acanthocolpus tenuis Manter, 1963 443
Arythmorhynchus capellae Schmidt, 1963 483
Cercaria apatema Hall and Groves, 1963 258
Cercaria astraeadena Hall and Groves, 1963 259
Cercaria blennifera Hall and Groves, 1963 254
Cercaria dolomeda Hall and Groves, 1963 255
Cercaria dracodysiana Hall and Groves, 1963 255
Cercaria polypyreta Hall and Groves, 1963 258
Cercaria stenodorya Hall and Groves, 1963 251
Cleithrarticus cleithrarticus Mizelle, 1963 752
Deretrema acutum Pritchard, 1963 581
Eimeria siniffi Levine and Ivens, 1963 661
Eutalpacarus himizu Jameson, 1963 503
Eutalpacarus inflatus Jameson, 1963 505
**Gorgorhynchoides elongatus* Cable and Linderoth, 1963 715
Guggenheimia thumi Manter, 1963 103
Gyrodactylus atratuli Putz and Hoffman, 1963 561
Gyrodactylus margaritae Putz and Hoffman, 1963 561
Haemaphysalis kutchensis, Hoogstraal and Trapido, 1963 489
Haemaphysalis megalaimae Rajagopalan, 1963 340
Haemaphysalis paraturturis Hoogstraal, Trapido, and Rebello, 1963 686
Haemaphysalis silvafelis Hoogstraal and Trapido, 1963 346
Henneguya doori Guilford, 1963 478
Illiosentis ctenorhynchus Cable and Linderoth, 1963 713
Illiosentis heteracanthus Cable and Linderoth, 1963 711
Illiosentis longispinus Cable and Linderoth, 1963 711
**Lamanema chavezi* Becklund, 1963 1023
Lepocreadium exiguum Manter, 1963 99
**Lobatotrema aniferum* Manter, 1963 104
Microtrombicula nasalis Loomis, 1963 331
Microtrombicula wrenni Loomis, 1963 332
**Mitotrema anthostomatum* Manter, 1963 449
Monobothrium hunteri Mackiewicz, 1963 723
Multitestis pyriformis Manter, 1963 101
Myxobolus insidiosus Wyatt and Pratt, 1963 951
Myxosoma neurophila Guilford, 1963 474
Myxosoma scleroperca Guilford, 1963 475
**Nematodirus lamae* Becklund, 1963 1025
Nosopon clayae Price and Beer, 1963 522
Opecoelus rhadinotus Manter, 1963 111
Opisthogonoporus vitellosus Pritchard, 1963 578
Ornithodoros sparnus Kohls and Clifford, 1963 857
Paracryptogonimus hirastrictus Manter, 1963 447
Paracryptogonimus saccatus Manter, 1963 447
**Parvipyrum acanthuri* Pritchard, 1963 582
Philophthalmus hegeneri Penner and Fried, 1963 974
Plagioporus longicirratus Manter, 1963 108
Plagioporus parvus Manter, 1963 108
Podocotyle parupenei Manter, 1963 111

Podocotyle plectropomi Manter, 1963 112
Prosogonotrema subequilatum Pritchard, 1963 586
Saccocoelioides sogandaresi Lumsden, 1963 282
Schizorchis yamashitai Rausch, 1963 479
Sclerodistomum bravoae Pritchard, 1963 585
Spirura tamarini Cosgrove, Nelson, and Jones, 1963 1010
Steatonyssus aelleni Radovsky and Yunker, 1963 337
Steatonyssus afer Radovsky and Yunker, 1963 335
Steatonyssus calcaratus Radovsky and Yunker, 1963 337
Steatonyssus longipes Radovsky and Yunker, 1963 334
Tergestia clonacantha Manter, 1963 445
Westella tabascensis Thatcher, 1963 123
Zoogonoides pyriformis Pritchard, 1963 583
Nitocris, virgulate xiphidiocercariae from 249
Nitrofurazone, drug resistance of *Eimeria tenella* to 947
NOBLE, G. A. Experimental infection of crabs with *Paragonimus* 352
Nosopon clayae sp. n. (Mallophaga) from *Pernis apivorus* (honey buzzard) 522
NUTTING, W. B., and H. RAUCH. Distribution of *Demodex aurati* in the host skin complex 323
Obeliscoides cuniculi in the rabbit, anthelmintic studies 51
Obeliscoides cuniculi, maintenance in laboratory rabbits 46
Obese mice (aurothioglucose) development of *Hymenolepis diminuta* in 398
Obituary—Don E. Eyles 911
Obituary—Wendell D. Gingrich 391
Obituary—William A. Riley 911
Ocular trematode, exposure of chicks to metacercaria of *Philophthalmus* 978
Ocular trematode, *Philophthalmus hegeneri*, new species from birds 974
Ocular trematode, reinfection of chicks with *Philophthalmus* 981
Oestrus ovis, second instar, ecdysis observed in vitro 659
OLIVEIRA, C. A. (see Pellegrino et al.) 365
OLSON, A. C., JR. (see Colley) 148
OLSON, A. C., JR. (see Kellogg) 744
Oncomelania formosana from different areas of Taiwan, susceptibility to Formosan strain *Schistosoma japonicum* 702
Oncomelania hybrid, susceptibility to *Schistosoma japonicum* 284
Oncomelania nosophora, susceptibility to infection with *Schistosoma* 813
Oncorhynchus tshawytscha (fish), host of *Myxobolus insidiosus* (Myxosporidia) 951
Oocysts, sporulated, coccidial, of domestic sheep in U. S., descriptions of 799
Oogram in the study of schistosomiasis 365
Opecoelidae (Trematoda, Digenea) in Fiji fishes 99
Ophidascaris labiatopapillosa Walton, 1927 (Nematoda), redescription 765
Opisthogonoporus vitellosus sp. n. from *Naso unicornis*, unicorn fish 578
Opistholebetidae (Trematoda, Digenea) in Fiji fishes 99
Oregon, new host records for *Fascioloides magna* 339
Oregon, new locality for *Levinseniella minuta* (Trematoda) 856
Orientocreadium batrachoides redescribed from Egyptian fish (*Clarias lazera*) 451
Orientocreadium spp. (Trematoda) from fishes of Egypt, review of genus 451
Ornithodoros sparnus sp. n. (Argasidae) from Utah and Arizona rodents 857
Ostertagia spp., differential growth in sheep's abomasum 698
PANDE, B. P. (see Dubey) 770
Paracryptogonimus hirastrictus sp. n. (Trematoda) from redfish, Fiji 447
Paracryptogonimus saccatus sp. n. from redfish, Fiji 447
Paragonimus, experimental infection of crabs 352
Parasitic meningoencephalitis, experimental production in a monkey 156
Parasitic protozoa, electron transport mechanisms in, review 12
Parvipyrum acanthuri gen. n., sp. n. from *Acanthurus olivaceus* 582
Pasture rotation, effect on parasitism in lambs 209
Pathology of *Lernaea cyprinacea* infection in tadpoles 693
Pediculus humanus—effect of frequency of feeding upon biology of 516
PEEL, E. (see van den Berghe et al.) 471
PELLEGRINO, J., C. A. OLIVEIRA, and JANE FARIA. The oogram in the study of relapse in experimental chemotherapy of schistosomiasis mansoni 365
Pellonyssus passeri (Acarina), new host and distribution records 38

PENNER, L. R., and B. FRIED. *Philophthalmus hegeneri* sp. n., an ocular trematode from birds 974
PENNER, L. R. (see Fried) 978
PÉREZ REYES, R., and E. LÓPEZ-OCHOTERENA. *Sphaerophrya sol* (Ciliata : Suctoria) parasitic in some Mexican ciliates 697
PETERS, L. E. *Crepidostomum illinoiense* (Trematoda)—Its excretory system and miracidium 147
PETERS, L. E. (see Self et al.) 731
PETERSON, H. O. (see Apodaca et al.) 659
Pheasant, ring-neck, nematodes of, in Illinois 701
PHIFER, K. O. (see Jeffery et al.) 639
Philippines, occurrence of *Plasmodium coatneyi* in 1038
Philophthalmus hegeneri (ocular trematode), exposure of chicks to metacercaria 978
Philophthalmus hegeneri (ocular trematode), reinfection of chicks with 981
Philophthalmus hegeneri sp. n., ocular trematode from birds 974
Pigeons, hematozoa of in Colorado 320
Pigeons (squabs), early infections with *Ascaridia* and *Capillaria* 208
PISTOR, W. J. (see Dewhirst et al.) 297
PITTS, T. D. In vitro cultivation of newly hatched larvae of ascaris from man and swine 1034
Plagiorchis, comparison of xiphidiocercariae of *P. muris* and *P. proximus* 84
Planorbid snail (*Menetus*), experimental infection with *Spirorchis* (trematode) 588
Plasmodium berghei, evaluation of antimalarial combinations against 920
Plasmodium berghei, gametogony and sporogony in strain preserved at low temperature 926
Plasmodium brasilianum, hosts of 316
Plasmodium coatneyi from the Philippines 1038
Platyhelminthes, occurrence of histamine in 653
Poecilancistrium (Cestoda), a note on the genus 301
Polyphenol oxidase in *Clonorchis* 197
Posthodiplostomum minimum in fishes of San Diego County, California 148
Posthodiplostomum minimum (Trematoda), factors influencing infectivity for fishes 744
PRATT, I. (see Wyatt) 951
Precipitins in sera of swine infected with *Stephanurus dentatus* 633
PRICE, C. E. (see Mizelle) 1028
PRICE, M. A. (see Strandtmann et al.) 38
PRICE, R. D., and J. R. BEER. *Nosopon clayae* sp. n. (Mallophaga : Menoponidae) from *Pernis apivorus* 522
PRITCHARD, MARY H. Studies on digenetic trematodes of Hawaiian fishes, primarily families Lepocreadiidae and Zoogonidae 578
Precipitate patterns in agar gel with *E. histolytica* antigen and human antisera 313
Prosogonotrema subequilatum sp. n. from *Naso unicornis* (unicorn fish) 586
Proterometra dickermani (trematode), life history of 275
Protozoan intracellular parasites, immunity to 3
Pseudomonas sp., as cause of cuticular lesions of *Ascaris* 231
PUTZ, R. E., and G. L. HOFFMAN. Two new *Gyrodactylus* (Trematoda : Monogenea) from cyprinid fishes with synopsis of those found on North American fishes 559
Rabbits as host of stomach worm, *Obeliscoides cuniculi* 46
Rabbits, correlation between sex and age and their nematode parasites 55
Rabbits, distribution of parasitic nematodes in gut 593
Radiosulphate uptake of *Haematoloechus medioplexus* 121
RADOVSKY, F. J., and C. E. YUNKER. Four new species of *Steatonyssus* from Africa (Acarina: Dermanyssidae) 334
RAI, S. L., and S. M. AGARWAL. Morphological variations in *Xenopharynx solus* Nicoll, 1912 and their bearing on the systematics of the genus *Xenopharynx* Nicoll, 1912 (Trematoda : Plagiorchiidae) 468
RAJAGOPALAN, P. K. *Haemaphysalis megalaimae* sp. n., a new tick from the small green barbet (*Megalaima viridis*) in India 340
Rapid method for collecting intestinal helminths 997
RAUCH, H. (see Nutting) 323
RAUSCH, R. L. *Schizorchis yamashitai* sp. n. (Cestoda : Anoplocephalidae) from the northern pika *Ochotona hyperborea* Pallas in Hokkaido 479
REBELLO, M. J. (see Hoogstraal et al.) 686
REID, W. M. (see Sharma et al.) 159
Reimplantation of *Dirofilaria* after transatlantic transport in vitro 1035

Reinfection of chicks with *Philophthalmus* (ocular trematode) 981
Renal function in *Eimeria tenella* infection 937
Resistance of the white rat to *Litomosoides*, effect of cortisone on 225
Respiratory tract infections with trichomonads 35
Reviewers for volume 49, editorial acknowledgment 936
Rhadinorhynchus lintoni, new name for *R. pristis* 710
Rhadinorhynchus Lühe, 1911, emended description 709
Rhesus monkeys, hydatid disease in 837
Rhinonyssus rhinolethrum (nasal mite), morphology of life stages 506
Riley, William A.—Obituary 911
RITCHIE, L. S., S. GARSON, and WILDA B. KNIGHT. Biology of *Schistosoma mansoni* in laboratory rats 571
RITCHIE, L. S., J. H. TAUBR, and T. W. EDWARDS. Survival of laboratory-reared *Australorbis glabratus* infected with *Schistosoma mansoni* 699
RITCHIE, L. S. (see Fox et al.) 648
ROBINSON, E. S. (see Meyer) 969
Rock vole, host of *Capillaria hepatica* 450
RONDEAU, E. A. (see Jeffery et al.) 639
ROSHDY, M. A. Comparative internal morphology of subgenera of *Argas* ticks (Ixodoidea, Argasidae). 3. Subgenus *Secretargas : Argas transgariepinus* White, 1846 851
Rutshurutrema acanthodes (Trematoda) from Egyptian shrews 1029
Saccocoelioides sogandaresi (haploporid trematode), new species from the sailfin molly 281
SADUN, E. H., R. E. DUXBURY, J. S. WILLIAMS, and R. I. ANDERSON. Fluorescent antibody test for serodiagnosis of African and American trypanosomiasis in man 385
SADUN, E. H. (see Anderson et al.) 642
SADUN, E. H. (see Williams et al.) 380
SAMSON, KAY S. (see Hibler et al.) 652
SAWYER, T. K., and P. P. WEINSTEIN. In vitro development of microfilariae of the dog heartworm *Dirofilaria immitis* to the "sausage-form" 218
SAWYER, T. K., and P. P. WEINSTEIN. Studies on microfilariae of the dog heartworm *Dirofilaria immitis:* Separation of parasites from whole blood 39
SAWYER, T. K. (see Hawking et al.) 1035
Schistosoma japonicum, growth inhibition in *Oncomelania* snails infected with 151
Schistosoma japonicum, susceptibility of *Oncomelania formosana* to 702
Schistosoma japonicum, susceptibility of *Oncomelania* hybrids to 284
Schistosoma japonicum, susceptibility of *Oncomelania* to infection with 813
Schistosoma mansoni, biology of in laboratory rats 571
Schistosoma mansoni, immunity in mice subjected to chemically abbreviated infections 824
Schistosoma mansoni, immunogenic significance of eggs in tissues 117
Schistosoma mansoni in African green and rhesus monkeys 567
Schistosoma mansoni, infection of rodents by ingestion of snails 150
Schistosoma mansoni, survival of *Australorbis glabratus* infected with 699
Schistosoma mansoni, survival of snails infected with 149
Schistosomiasis, efficacy of a 2-phenyl quinoline against 528
Schistosomiasis, recovery of viable eggs from host tissues 371
Schistosomiasis, use of the oogram in studies on relapse 365
Schizorchis yamashitai sp. n. (Cestoda) from northern pika 479
Schizotrypanum cruzi, galactose utilization in 808
SCHMIDT, G. D. *Arhythmorhynchus capellae* sp. n. (Polymorphidae : Acanthocephala), a parasite of the Common Snipe *Capella gallinago delicata* 483
SCHOENBECHLER, M. J. (see Anderson et al.) 642
Sclerodistomum bravoae sp. n. from *Diodon hystrix* (fish) 585
SELF, J. T., L. E. PETERS, and C. E. DAVIS. Egg, miracidium, and adult of *Nematobothrium texomensis* (Trematoda : Digenea) 731
Serodiagnosis of human trypanosomiasis by fluorescent antibody test 385
Serology of *Eimeria tenella* oocysts 943
SHAH, H. L. Coccidia (Protozoa : Eimeriidae) of domestic sheep in the United States, with descriptions of the sporulated oocysts of six species 799
SHARMA, N. N., and J. W. FOSTER. Serology of *Eimeria tenella* oocysts with rabbit serum 943
SHARMA, N. N., W. M. REID, and J. W. FOSTER. A method for cleaning coccidial oocysts using density-gradient sedimentation 159
SHARP, N. C. C. (see Jarrett) 177

SHAW, J. N. (see Knapp) 339
Sheep, Colorado and New Mexico, infected with *Dictyocaulus filaria* 652
Sheep, differential growth of *Ostertagia* spp. in abomasum 698
Sheep, direct transmission of coccidial infection in 59
Sheep, distribution of parasitic nematodes in gut 593
Sheep gastrointestinal nematodes, in vitro culture of 600
Sheep, immunity to *Dictyocaulus* obtained by vaccination 612
SHEFFIELD, H. G. Electron microscopy of bacillary band and stichosome of *Trichuris muris* and *T. vulpis* 998
SHEPPERSON, JACQUELINE (see Lincicome) 31
SHERMAN, I. W., and G. J. JACKSON. Zymograms of parasitic nematodes, *Neoaplectana glaseri* and *N. carpocapsae*, grown axenically 392
SHIELDS, R. J. (see Tidd) 693
SHIH, C. C. (see Hsieh et al.) 425
SHOOKHOFF, H. B. (Book Review) Essentials of Medical Parasitology 1039
Shrew-moles in Japan, new species of *Eutalpacarus* (Acarina) from 503
Shrews, Egyptian, as hosts of *Rutshurutrema acanthodes* 1029
Sieves, miniature, and transfer containers 968
Simian malaria, distribution of parasites in various hosts 905
Simian malaria, experimental adaptation to abnormal hosts 912
Simian malaria, geographic distribution of 866
Simian malaria, species of 866
Simian malaria, symposium on recent advances in 865
Simian malaria, vectors of 892
SMITH, W. N., and L. R. DAVIS. Direct transmission of coccidial infection in sheep 59
Snakes, North American, redescription of *Ophidascaris labiatopapillosa* from 765
SOGANDARES-BERNAL, F., and R. D. LUMSDEN. Generic status of the heterophyid trematodes of *Ascocotyle* complex, including notes on systematics and biology of *Ascocotyle angrense* Travassos, 1916 264
SOKOLIĆ, A., M. JOVANOVIĆ, K. ČUPERLOVIĆ, and M. MOVSESIJAN. Inhibition of development of *Dictyocaulus filaria* as expression of immunity attained in sheep 612
SOMMERVILLE, R. I. Differential growth of *Ostertagia* spp. in the sheep's abomasum 698
SOMMERVILLE, R. I. Distribution of some parasitic nematodes in alimentary tract of sheep, cattle, and rabbits 593
Sparganosis, human, in the United States 294
Sparganosis in man in Arkansas 154
Sphaerophrya sol, parasitic in Mexican ciliates 697
Spirocerca lupi, scarabaeid beetles as intermediate hosts for 485
Spirorchis sp. (trematode), experimental infection of planorbid snail with 588
Spirura tamarini sp. n. (Nematoda) from an Amazonian primate 1010
STABLER, R. M., and P. A. HOLT. Hematozoa from Colorado birds. I. Pigeons and doves 320
Statistical analysis of morphological variation in populations of *Zonorchis* (Trematoda) .. 745
STAUBER, L. A. Some aspects of immunity to intracellular protozoan parasites, Presidential address 3
Steatonyssus (mites), new species from Africa 334
Stephanurus dentatus in swine, precipitins in sera 633
STEWART, T. B. *Thominx phasianina* (Nematoda : Capillariidae) and other nematodes from the ring-neck pheasant (*Phasianus colchicus*) in Illinois 701
STEWART, T. B., and H. J. GODWIN. Cuticular lesions of *Ascaris suum* caused by *Pseudomonas* sp. 231
STEWART, T. B., and K. M. KENT. Beetles serving as intermediate hosts of swine nematodes in southern Georgia 158
Stichosome in *Trichuris*, electron microscopy of 998
Stilbazium iodide, effect on *Enterobius vermicularis* and other intestinal helminths 639
Stilbazium iodide, for treatment of enterobiasis 1021
Stilbazium iodide, in treatment of various helminthiases 425
Stilbazium iodide, mass treatment for *Syphacia* in mice 1019
Stomach worm of rabbits, *Obeliscoides cuniculi* 46
STONE, W. B., and R. D. MANWELL. Viability of the proliferative form of toxoplasma in distilled water 1036
STRANDTMANN, R. W., B. McDANIEL, and M. A. PRICE. New host and distribution records for *Pellonyssus passeri* Clark and Yunker (Acarina: Dermanyssidae) 38
Strongyloides ratti, life cycle of 241

Surface-active agents, stimulating evagination of cysticerci in vitro 81
Swine, infected with *Stephanurus dentatus*, precipitins in sera 633
Swine nematodes, beetles as intermediate hosts of, in Georgia 158
Syphacia obvelata in mice, mass treatment with stilbazium iodide 1019
Symposium on simian malaria 865
SZYFRES, B., and I. G. KAGAN. A modified slide latex screening test for hydatid disease 69
Tadpoles, tissue damage in, inflicted by *Lernaea cyprinacea* 693
Taenia saginata, longevity of cysticerci 297
Taenia saginata, structure of cysticercus 85
Taenia solium, structure of cysticercus 85
Tapeworm, as symbol of technocratic man 705
Tapeworms, larval, cause of parasitic ascites in dogs 983
TARASKA, J. J. (see Walls et al.) 930
TAUBR, J. H. (see Ritchie et al.) 699
Technique, new method of axenizing nematodes 351
TELFORD, J. M. (see Mettrick) 653
Temperature, effect on development of free-living stages of cattle nematode parasites 60
Temperature stress, sensitivity of *Hymenolepis microstoma* cysticercoids 152
TER BUSH, L. E. Incidence of nasal mites in different age classes of herring gulls (*Larus argentatus*) 525
Tergestia clonacantha sp. n. (Trematoda) from *Hemiramphus* (fish) 445
THATCHER, V. E. A new species of *Westella* (Trematoda: Opisthogoniminae) from a Mexican snake 123
Thiabendazole, efficacy against hookworm and ascaris in man 1014
THOMAS, J. I. (see Browne) 371
THOMAS, L. J., JR. (see Zam et al.) 190
Thominx phasianina and other nematodes from ring-neck pheasant in Illinois 701
THOMPSON, J. H. Human *Dipylidium caninum* infection 402
THOMPSON, P. E. (see Meisenhelder) 567
THOMPSON, P. E. (see Worley) 51
THORSON, R. E. (see McCue) 997
Ticks, African *Haemaphysalis* 830
Ticks, new record for *Argas boueti* in Malaya 350
Ticks, new species from green barbet, India 340
Ticks, new species from jungle cat, India 346
Ticks, new species of *Ornithodoros* from Utah and Arizona 857
Ticks, redescription of *Haemaphysalis intermedia* 838
TIDD, W. M., and R. J. SHIELDS. Tissue damage inflicted by *Lernaea cyprinacea* Linnaeus, a copepod parasitic on tadpoles 693
Toxoplasma gondii, effect of irradiation on 814
Toxoplasma gondii, isolation from cysts in human brain 930
Toxoplasma, various antibodies for in experimental rats 932
Toxoplasma, viability of proliferative form in distilled water 1036
Trace elements in *Clonorchis* 197
TRAPIDO, H. Status of *Haemaphysalis bispinosa* var. *intermedia* Warburton and Nuttall, 1909 691
TRAPIDO, H., H. HOOGSTRAAL, and M. G. R. VARMA. Redescription of the holotype and description of all stages of *Haemaphysalis turturis* Nuttall and Warburton from Ceylon and India (Ixodoidea, Ixodidae) 678
TRAPIDO, H. (see Hoogstraal) 346
TRAPIDO, H. (see Hoogstraal) 489
TRAPIDO, H. (see Hoogstraal et al.) 686
Trematode parasites (Digenea) from Egyptian fishes 91
Trematode parasites (Digenea) from fishes of Fiji 99
Trematode parasites of fishes from Egypt 451
Trematodes (digenetic) of Fijian fishes 443
Trematodes of Hawaiian fishes 578
Trichinella spiralis larvae, use of an acid soluble fraction of in diagnostic test 642
Trichinosis, diagnosis by flocculation tests 642
Trichomonads in respiratory tract 35
Trichomoniasis, bovine, systemic treatment for 959
Trichostrongylus axei, immunologic response of calves to infection with 623
Trichostrongylus axei in the Mongolian gerbil 617

Trichostrongylus retortaeformis (Nematoda) in the rabbit 55
Trichuris muris in mice, effect of cortisone on spontaneous cure 628
Trichuris spp., electron microscopy of bacillary band and stichosome 998
Trichuris trichiura, treatment with stilbazium iodide 425
Trinidad, W. I., new locality for *Trypanosoma cruzi* 50
Trypanosoma rhodesiense and *T. gambiense*, fluorescent antibody reactions 380
TROMBA, F. G., and L. A. BAISDEN. Precipitins in sera of swine infected with *Stephanurus dentatus* 633
TROMBA, F. G. (see Baisden) 375
Trypanorhyncha, *Poecilancistrium*, a note on the genus 301
Trypanosoma cruzi, first record of occurrence in Trinidad, W. I. 50
Trypanosoma cruzi in mice as a drug testing system 22
Trypanosoma duttoni as cause of increased growth rate in mice 31
Trypanosoma ranarum, effect of pH on culture forms 389
Trypanosomiasis, human, serodiagnosis by fluorescent antibody 385
TURNER, J. H. (see Lindahl et al.) 209
UPHAM, R. W., JR. (see Walton et al.) 526
UPMANIS, R. S. (see Yoeli et al.) 926
Vaccination against *Dictyocaulus viviparus* 177
Vaccination of sheep against *Dictyocaulus* 612
VAN DEN BERGHE, L., E. PEEL, and M. CHARDOME. Two sheathed microfilariae in animals from the Congo Basin Forest 471
VARMA, M. G. R. (see Trapido et al.) 678
VIK, R. (see Meyer) 962
Virgulate xiphidiocercariae from *Nitocris* 249
Vitamin B_{12}, uptake by *Ascaris suum* 190
VOGE, MARIETTA. Observations on the structure of cysticerci of *Taenia solium* and *T. saginata* (Cestoda: Taeniidae) 85
VOGE, MARIETTA. Sensitivity of cysticercoids of *Hymenolepis microstoma* (Cestoda: Cyclophyllidea) to high temperature stress 152
VOGE, MARIETTA, and A. K. BERNTZEN. Asexual multiplication of larval tapeworms as cause of fatal parasitic ascites in dogs 983
WAGNER, E. D. Single dose treatment of enterobiasis with stilbazium iodide (Monopar) 1021
WAITZ, J. A. Glycolytic enzymes of the cestode *Hydatigera taeniaeformis* 285
WAITZ, J. A. Histochemical studies of the cestode *Hydatigera taeniaeformis* Batsch, 1786 73
WALLS, K. W., J. J. TARASKA, and M. GOLDMAN. Isolation of *Toxoplasma gondii* from cysts in human brain 930
WALSH, W. P. (see Mueller et al.) 294
WALTON, B. C., and T. BACHARACH. Occurrence of trichomonads in the respiratory tract. Report of three cases 35
WALTON, B. C., J. E. GLOVER, and R. W. UPHAM, JR. Lack of *Dirofilaria immitis* infection in wild foxes from an enzootic area 526
Wardius zibethicus (Trematoda), first intermediate host of 116
WARREN, L. G., and W. B. KITZMAN. Metabolism of *Schizotrypanum cruzi* Chagas. II. Galactose utilization 808
WARREN, McW., and R. H. WHARTON. Vectors of simian malaria: identity, biology, and geographical distribution 892
WARREN, McW. (see Eyles) 891
WARREN, McW. (see Eyles et al.) 1038
WASLEY, M. A. (see Atchley et al.) 313
Waterfowl, helminths from, in western Nevada and northeastern California 155
WEINSTEIN, P. P. (see Sawyer) 39
WEINSTEIN, P. P. (see Sawyer) 218
Westella tabascensis, new trematode from a Mexican snake 123
WHARTON, R. H. (see Warren) 892
WHITMORE, G. E. (see Lindahl et al.) 209
WILLIAMS, J. E. (see Moose) 284
WILLIAMS, J. E. (see Moose) 702
WILLIAMS, J. S. (see Sadun et al.) 385
WILLIAMS, J. S., R. E. DUXBURY, R. I. ANDERSON, and E. H. SADUN. Fluorescent antibody reactions in *Trypanosoma rhodesiense* and *T. gambiense* in experimental animals 380

WORLEY, D. E. Experimental studies on *Obeliscoides cuniculi*, a trichostrongylid stomach worm of rabbits. I. Host–parasite relationships and maintenance in laboratory rabbits 46
WORLEY, D. E., and P. E. THOMPSON. Experimental studies on *Obeliscoides cuniculi*, a trichostrongylid stomach worm of rabbits. II. Anthelmintic studies in the dutch rabbit 51
WORMS, M. J. (see Hawking et al.) 1035
Wuchereria bancrofti larvae in palpi and antennae of vector mosquitoes 771
WYATT, E. J., and I. PRATT. *Myxobolus insidiosus* sp. n., a myxosporidian from the musculature of *Oncorhynchus tshawytscha* (Walbaum) 951
Xenopharynx solus (Trematoda), morphological variations and systematics of 468
YČAS, M. (Book Review) Cell Growth and Cell Division 638
YOELI, M., R. S. UPMANIS, and H. MOST. Gametogony and sporogony in a strain of *Plasmodium berghei* preserved at low temperature 926
YUNKER, C. E. (see Radovsky) 334
ZAM, S. G., W. E. MARTIN, and L. J. THOMAS, JR. In vitro uptake of Co^{60}–vitamin B_{12} by *Ascaris suum* 190
Zonorchis petiolatum (Trematoda), statistical analysis of variation in 745
Zoogonoides pyriformis sp. n. from *Malacanthus hoedtii* (fish) 583
Zymograms of parasitic nematodes (*Neoaplectana* spp.) 392

INDEX TO OCTOBER SUPPLEMENT, 1963

NUMBER 5, SECTION 2

Acanthamoeba sp., excystment inhibitor from 20
Acanthocephalus jacksoni, embryonic layers around acanthor 42
Acanthor, embryonic layers around 42
Age, host, influence on *Trypanosoma lewisi* 23
Agglutinin titers, relationship of several isolates of *Trypanosoma lewisi* 57
ALICATA, J. E. Incapability of vertebrates to serve as paratenic host for infective larvae of *Angiostrongylus cantonensis* 48
Alligator mississipiensis, host–parasite relationships with *Odhneriotrema incommodum* 40
Allocreadiid cercaria in limpets 41
Amebiasis, teaching basic terminology and fundamentals of laboratory diagnosis by self-instructional materials 27
American Society of Parasitologists, program of annual meeting, Chicago, Ill. 1–14
Amino acids in coelomic fluid of *Ascaris suum* 50
Amphibia, as hosts for Protozoa, I, II, III 31
Ancylostoma caninum, glycolytic intermediates in 53
Ancylostoma caninum, succinic dehydrogenase in 52
Ancylostoma caninum, volatile acids in 52
ANDERSON, R. C. Studies on *Pneumostrongylus tenuis* of *Odocoileus virginianus* 40
ANDERSON, R. C. *Pneumostrongylus tenuis* Dougherty of *Odocoileus virginianus* 47
ANDERSON, R. I., E. H. SADUN, AND M. J. SCHOENBECHLER. Artificial immunization to *Schistosoma mansoni* produced in rats by cercarial antigen and inhibited by reacting the antigen in vitro with immune serum 54
Angiostrongylus cantonensis, failure of vertebrates to serve as paratenic host for 48
Angiostrongylus cantonensis, intermediate hosts of 46
Anopheles quadrimaculatus as host for *Dirofilaria uniformis* 48
Anthelmintics, against *Trichinella spiralis* in swine 15
Anthelmintics, against *Trichostrongylus axei* in gerbils 15
Anthelmintics, as sexual sterilants of screw-worm flies 17
Anthelmintics, bithionol activity against *Paragonimus kellicotti* in rats 16
Anthelmintics, carbamates and thiocarbamates as 15
Anthelmintics, 2-chloro-4-nitrobenzamide against coccidiosis in chickens 16
Anthelmintics, 6-mercaptopurine against *Hymenolepis nana* in mice 18
Anthelmintics, triphenylmethane dyes, activity of in experimental Chagas' disease 17
Antibiotics, effect on cecal parasites of rats 16
Antibiotics, effect on *Trichomonas gallinae* 28
Antibodies, detection of with larvae of *Oesophagostomum radiatum* 32
Antibodies, isotopically labeled, of *Trichinella spiralis* 35
Antibody-binding sites, localization of by fluorescent techniques in *Ascaris suum* 33
Antigen–antibody complexes, detection of in *Trichinella spiralis* and *Schistosoma mansoni* extracts 34
Antigen, cercarial, artificial immunization of rats to *Schistosoma mansoni* by 54
Antigenicity, in *Toxoplasma gondii* and *Besnoitia jellisoni* 57
Antigenicity of hymenolepids maintained in vitro 37
Antigenicity, schistosome cercarial preparations demonstrated by gel-agar diffusion 42
Antigenicity, strain J-93 of *Entamoeba histolytica* 27
Antigens, Forssman, in *Schistosoma mansoni* 53
Antigens, leukocyte chemotaxis to, in *Trichinella spiralis* 35
Antimony dimercaptosuccinate as sexual sterilant of screw-worm flies 17
Antisera, action on heterophyid cercariae 36
AREAN, V. M. (see Crandall et al.) 33
AREAN, V. M. (see Hunter et al.) 55
ARNOLD, J. C. (see Kagan et al.) 25
Ascaris, cytochrome c oxidase activity in 50
Ascaris lumbricoides, genital girdle in relation to estrus in 46
Ascaris, strangulation in a shoe eyelet 40
Ascaris suum, adults, effects of in pigs 45
Ascaris suum, amino acids in coelomic fluids of 50
Ascaris suum, electron microscopy of intestinal cells 58
Ascaris suum, inhibition of development in rodents on restricted diet 52
Ascaris suum, localization of antibody-binding sites by fluorescent techniques 33

Ascaris suum, passive immunity in pigs to migrating larvae of 33
Ascaris suum, weight gains and feed efficiency of swine experimentally infected with 45
Ascites in golden hamster with *Leishmania donovani* 29
Aspiculuris tetraptera, susceptibility of CF1, C57 Brown and Black, C3H, and DBA2 mouse strains to 32
Aspidobothrium from east Texas 25
Australorbis, activity of cuprous oxide as a molluscicide against 17
Australorbis glabratus, effect of crowding upon fecundity in 24
Australorbis glabratus, effect of *Schistosoma mansoni* infection upon fecundity in 26
Australorbis glabratus, facility for mass production of *Schistosoma mansoni* cercariae 24
Australorbis glabratus, tissues of for in vitro culture of *Schistosoma mansoni* 60
BAGBY, J. R., JR. Comparative parasitemias and tissue infectivity of several strains of *Trypanosoma cruzi* in young CFW mice 29
BAILEY, W. S. (see Cabrera et al.) 49
BAILEY, W. S., D. H. MORGAN, AND D. J. CABRERA. Prevalence and epidemiology of *Spirocerca lupi* in an endemic rural area near Auburn, Alabama 49
BALAMUTH, W., AND T. G. KAWAKAMI. Nutritional requirements of *Entamoeba invadens* 61
BALL, G. H. (see Chao) 28
BARKER, D. C. (see Svihla) 37
BARON, R. R., AND N. F. MOREHOUSE. Efficacy of 2-chloro-4-nitrobenzamide for prevention and control of coccidiosis in chickens 16
BASS, G. K., AND L. J. OLSEN. Infection of newborn mice with *Trichinella* 36
BASS, G. K., AND L. J. OLSEN. Resistance to reinfection of mice infected at birth with *Trichinella* 37
BEAVER, P. C. *Ascaris* strangled in a shoe eyelet 40
BEAVER, P. C., AND M. D. LITTLE. The genital girdle in relation to estrus in *Ascaris lumbricoides* 46
BEAVER, P. C., E. A. MALEK, AND M. D. LITTLE. Development of *Spirometra* and *Paragonimus* eggs in Harada–Mori cultures 24
BENNETT, G. F. (see Fallis) 29
BERGER, H. (see Wood et al.) 45
BERNTZEN, A. K. (see Voge) 60
BERNTZEN, A. K., AND J. F. MUELLER. In vitro culture of *Spirometra* from procercoid to early adult 60
BERRIOS-DURAN, L. A. (see Ritchie et al.) 17
BERTHOLDS, M. (see Villella et al.) 35
Besnoitia jellisoni, antigenic relationship with *Toxoplasma gondii* 57
Bile salts, as criterion for differentiation of *Leishmania* species 62
BINGHAM, T. W. (see Russell) 25
Bionomics, of *Trichuris muris* 46
Birds, patterns of tick infestation 30
Bithionol, against *Paragonimus kellicotti* in rats 16
BIZZELL, W. E. (see Ciordia) 44
BLAKE, J. D. (see Hanson et al.) 30
Blood group A in *Schistosoma mansoni* 53
BOTERO, H. (see Strout et al.) 20
Brachylaema sp. in land molluscs from Kenya, East Africa 26
BRADLEY, R. E. Growth of *Histomonas meleagridis* in avian embryos 62
BRIGGS, N. T. Increased host resistance to trichinosis induced by injections of 5-hydroxytryptophan, a serotonin precursor 15
BROOKE, M. M., AND R. L. REYNOLDS. Teaching basic terminology and fundamentals of laboratory diagnosis of amebiasis by self-instructional materials 27
BROWN, H. W. (see Dunn) 32
BRUCE, J. I. (see Sadun) 54
BRUCE, J. I. (see Sandt et al.) 24
BRUCE, J. I. (see Sleeman et al.) 36
BYRD, E. E., AND W. P. MAPLES. Early developmental stages in life history of *Dasymetra conferta* 42
BYRD, E. E., AND W. P. MAPLES. Excretory system of *Choledocystus pennsylvaniensis* 42
CABLE, R. M. Marine cercariae from Curaçao and Jamaica 41
CABLE, R. M., AND K. L. HAYES. North American and Hawaiian freshwater species of the genus *Philophthalmus* 41
CABRERA, B. D. (see Rozeboom) 47
CABRERA, D. J. (see Bailey et al.) 49

CABRERA, D. J., W. S. BAILEY, AND D. L. DIAMOND. Experimental infections with *Spirocerca lupi* 49
Calcification, metastatic, induced by hytakerol in chickens infected with *Plasmodium gallinaceum* 20
Calves, failure of as paratenic hosts for *Angiostrongylus cantonensis* 48
CANARIS, A. G. *Brachylaema* sp. Dujardin, 1843 in land molluscs from Kenya, East Africa 26
CANARIS, A. G. *Postharmostomum* sp. Witenberg, 1923 in land snails from Uganda, East Africa 26
Capillaria, eggs in the fish *Bathygobius fuscus* 43
Carbamates, as nematocides 15
Carbohydrate fermentation by *Tetratrichomonas gallinarum* in axenic culture 62
Carbon disulfide, against *Trichostrongylus axei*, in gerbils 15
Cartilage, fish, development of *Myxosoma* in 30
Cell inclusions, in dauer larva of *Rhabditis strongyloides* 40
Cell permeability, of *Trypanosoma lewisi*, studied with tetracycline 21
Cercariae, irradiated, of *Schistosoma mansoni*, histopathology in mice and monkeys caused by 53
Cercariae, irradiated, of *Schistosoma mansoni*, producing immunity in mice 55
Cercariae, irradiated, of *Schistosoma mansoni*, producing immunity in monkeys 54
Cercariae, marine, from Curaçao and Jamaica 41
Cercariae, of *Schistosoma mansoni*, development under dialysis membranes in Rose multi-purpose chambers 61
Cercariae, of *Schistosoma mansoni*, proteolytic enzyme activity in 19
Cercariae, of *Schistosoma mansoni*, snail colony facility for mass production of 24
Cestode, possessing small hooks with bifid guards, morphology and life cycle of 23
Chagas' disease, activity of triphenylmethane dyes in 17
CHAO, J., AND G. H. BALL. Effect of temperature on *Plasmodium relictum* in *Culex tarsalis* 28
Chemical attractants for miracidia of *Schistosoma mansoni* 19
Chemotaxis, leukocyte, to *Trichinella spiralis* antigens 35
CHERNIN, E. Maintenance in vitro of larval *Schistosoma mansoni* in tissues derived from the snail, *Australorbis glabratus* 60
Chicks, failure of as paratenic hosts for *Angiostrongylus cantonensis* 48
Chloramphenicol, effect on cecal parasites of rats 16
2-chloro-4-nitrobenzamide, effect of, on coccidiosis in chickens 16
Chloroquine diphosphate, as sexual sterilant of screw-worm flies 17
Choledocystus pennsylvaniensis, excretory system in 42
CHORDI, A., K. W. WALLS, AND I. G. KAGAN. Specificity of indirect hemagglutination test for toxoplasmosis 56
CIORDIA, H., AND W. E. BIZZELL. Effect of a grain diet on development of some cattle nematode larvae 44
Coccidia, excystation in various animals 32
Coccidial oocysts, lipids of 20
Coccidiosis, effect of 2-chloro-4-nitrobenzamide in chickens 16
Coccomyxa in the fish *Bathygobius fuscus* 43
CO_2, effect of on respiration of culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Coelomic fluids, *Ascaris*, amino acids in 50
COIL, W. H. Life cycle of dioecious tapeworm, *Gyrocoelia pagollae* 38
Coitocaecum bathygobium in the fish *Bathygobius fuscus* 43
COLEMAN, R. M. Antigenicity of viable hymenolepids maintained in vitro 37
COLEMAN, R. M., AND N. FOTORNY. Effect of 6-mercaptopurine administered during infection of mice with *Hymenolepis nana* 18
Collecting, intestinal helminths, rapid method for 43
COSTELLO, L. C. (see Oya et al.) 51
COSTELLO, L. C. (see Smith et al.) 51
COSTELLO, L. C., AND H. OYA. Cytochrome c oxidase activity in developing *Ascaris* eggs 50
COX, H. W. Immune response of rats and mice to trypanosome infections 56
CRANDALL, C. A., R. ECHEVARRIA, AND V. M. AREAN. Localization of antibody-binding sites in *Ascaris suum* by means of fluorescent techniques 33
CRANDALL, R. B. (see Hunter et al.) 55
CRANDALL, R. B., AND R. D. SCHMPFF. In vitro study of leukocyte chemotaxis to *Trichinella spiralis* antigens 35

Crites, J. Some nematode parasites of millipedes 40
Cross-reactivity, in human malarias with fluorescent antibody test 56
Crowding, effect of, on respiration of culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Crowding, effect of, upon fecundity in *Australorbis glabratus* 24
Crowley, K., and L. G. Warren. Production of volatile acids by *Ancylostoma caninum* 52
Crystal, M. M. Antifertility effects of anthelmintics in insects 17
Culex tarsalis. Effect of temperature on *Plasmodium relictum* in 28
Cultivation, hookworms 59
Cultivation, in vitro, of cercariae of *Schistosoma mansoni* in Rose multipurpose chambers 61
Cultivation, in vitro, of cysticerci of *Taenia crassiceps* 59
Cultivation, in vitro, of *Entamoeba invadens* 61
Cultivation, in vitro, of *Oesophagostomum quadrispinulatum* 58
Cultivation, in vitro, of *Schistosoma mansoni* in snail tissues 60
Cultivation of *Histomonas meleagridis* with hamster kidney tissue 61
Cultivation, *Trichomonas gallinae* 28
Culture age, effect of on respiration of culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Culture, axenic, of *Tetratrichomonas gallinarum*, effect of bacteria and fungi 62
Culture, axenic, of *Tetratrichomonas gallinarum*, growth and carbohydrate fermentation 62
Culture, Harada–Mori, development of *Spirometra* and *Paragonimus* eggs in 24
Culture, in vitro, of *Dirofilaria immitis* 59
Culture, in vitro, of *Leishmania*, responses to temperature and bile salts for species differentiation 62
Culture, in vitro, of *Spirometra* 60
Culture, tissue, effect of hamster serum upon *Plasmodium berghei* in 61
Cuprous oxide, as a molluscicide 17
Cuticle, hard, of spiny rat mite, *Echinolaelaps echidninus* 58
Cysticercoids of *Hymenolepis microstoma*, variations in infectivity of 23
Cytochrome c oxidase in *Ascaris* 50
Cytochrome c reduction in *Ascaris* 51
Damian, R. T. (see Short) 31
Damian, R. T. Blood group A and Forssman antigens in *Schistosoma mansoni* 53
Dasymetra conferta, life cycle of 42
Davis, J. R. (see Hsü, H. F. et al.) 53
Deer, incidence and distribution of *Elaphostrongylus odocoilei* in Michigan herd 47
Deer, *Pneumostrongylus tenuis* of 47
DeGiusti, D. L. Incidence and distribution of *Elaphostrongylus odocoilei* in Michigan deer herd 47
DeGiusti, D. L. (see Weiss) 61
Dehydrogenase in *Ascaris* 51
Dehydrogenase, succinic in *Ancylostoma caninum* 52
Development of some cattle nematode larvae, effect of a grain diet on 44
Development of *Spirometra* and *Paragonimus* eggs in Harada–Mori cultures 24
Diagnosis, serological, in human visceral leishmaniasis with fluorescent antibody test 57
Diamond, D. L. (see Cabrera et al.) 49
Diclybothrium hamulatum, from eastern Pacific fishes 27
Dictyocaulus viviparus, infective larvae, effect of sudden lowering of temperature on 44
Dicyema aegira, development 31
Diet, grain, effect of on development of some cattle nematode larvae 44
Diggs, C. L., and E. H. Sadun. Cross-reactivity studies in human malaria by use of a modified fluorescent antibody test 56
Dirofilaria immitis, cultivation, in vitro 59
Dirofilaria uniformis, development in *Anopheles quadrimaculatus* 48
Distribution, of *Elaphostrongylus odocoilei* in Michigan deer herd 47
Dithiazanine iodide, against *Trichostrongylus axei* in gerbils 15
Dixon, C. F. Failure to effect skin penetration of domestic rabbits with larvae of *Trichostrongylus calcaratus* Ransom, 1911 48
Dogs, microfilariasis, in U. S. 49
Douvres, F. W. Use of live *Oesophagostomum radiatum* larvae to detect antibodies in sera and extracts of intestinal tissues from infected or resistant cattle 32
Dubes, G. R. (see Jensen) 20
DuBuy, H. G., C. Greenblatt, D. R. Lincicome, and J. Hayes. Tetracycline as a tool for experimental study of cell permeability of *Trypanosoma lewisi* 21

DUNAGAN, T. T. Glycogen depletion in *Neoechinorhynchus* spp. (Acanthocephala) from turtles ... 18
DUNLOP, W. R. (see Strout et al.) ... 20
DUNN, MARY C., AND H. W. BROWN. Comparison of the susceptibility of CF1, C57 brown, C3H, C57 black, and DBA2 strains of mice to *Aspiculuris tetraptera* ... 32
DUSANIC, D. G., AND R. M. LEWERT. Detection of soluble and insoluble antigen–antibody complexes of isotopically labeled *Trichinella spiralis* and *Schistosoma mansoni* extracts following electrophoretic separation ... 34
DUXBURY, R. E. (see Price et al.) ... 48
DUXBURY, R. E., AND E. H. SADUN. Fluorescent antibody test for serological diagnosis of visceral leishmaniasis in humans ... 57
Earthworms in transmission of *Heterakis* and *Histomonas* to fowl ... 50
ECHEVARRIA, R. (see Crandall et al.) ... 33
Echinolaelaps echidninus, spiny rat mite, hard cuticle of ... 58
Echinorhynchus gadi, embryonic layers around acanthor ... 42
Edema, in golden hamster with *Leishmania donovani* ... 29
EGLE, J. L., AND L. H. SAXE. Quantitative changes in the cecal flora and fauna of rats treated with antibiotics ... 16
Eimeria bovis, excystation in vitro of oocysts of ... 20
Eimeria nieschulzi, observations on in rat ... 28
Eimeria spp., effect of 2-chloro-4 nitrobenzamide in chickens ... 16
Eimeria tenella, microelectrophoresis of serum proteins of chickens infected with ... 21
Elaphostrongylus odocoilei, incidence and distribution of in Michigan deer herd ... 47
Electron microscopy, *Ascaris suum* intestinal cells ... 58
Electron microscopy of *Giardia muris* ... 38
Electrophoresis, micro-, of serum proteins of chickens infected with *Eimeria tenella* ... 21
ELLIS, D. J. (see Lund et al.) ... 50
Embryos, avian, growth of *Histomonas meleagridis* in ... 62
EMEJUAIWE, S. O. (see Lincicome) ... 23
Emetine hydrochloride, as sexual sterilant of screw-worm flies ... 17
Endotoxin, bacterial, effect on mice with *Trypanosoma congolense* infections ... 21
Entamoeba histolytica, strain J-93, morphology, pathogenicity, antigenicity ... 27
Entamoeba invadens, nutritional requirements of ... 61
Entamoeba invadens, ultraviolet microscopy of ... 37
Entamoeba muris, effect of antibiotics on ... 16
Enzyme activity, proteolytic, in cercariae of *Schistosoma mansoni* ... 19
Epidemiology, of filariasis in Mountain Province, Luzon, Philippine Islands ... 47
Epidemiology, of schistosomiasis in Puerto Rican schoolchildren ... 25
Epidemiology, *Spirocerca lupi* ... 49
Epizootiology, *Leucocytozoon simondi* infections ... 29
ERICKSON, D. G. Electron microscopy of *Giardia muris* ... 38
Estrogen, in gonadectomized rats with *Strongyloides ratti* ... 52
ETGES, F. J. Effect of *Schistosoma mansoni* infection upon fecundity in *Australorbis glabratus* ... 26
ETGES, F. J. Laboratory studies on the effect of crowding upon fecundity in *Australorbis glabratus* ... 24
EVANS, A. S. Variations in infectivity of cysticercoids of *Hymenolepis microstoma* ... 23
Excretions and secretions of larval *Trichinella spiralis* and role in immunity ... 35
Excretory and secretory products of *Schistosoma mansoni* cercariae, isolation and characterization of serologically active components of ... 36
Excretory system of nematode *Choledocystus pennsylvaniensis* ... 42
Excretory system, ultrastructure of philophthalmid ... 41, 58
Excystation of coccidia in various animals ... 32
Excystation, in vitro, of *Eimeria bovis* oocysts ... 20
Excystment inhibitor, production and properties of, from *Acanthamoeba* sp. ... 20
Exsheathment, mechanisms in nematodes ... 50
Eyespot, ultrastructure, of philophthalmid ... 41, 58
FAIRBAIRN, D. (see Roberts) ... 51
FALLIS, A. M., AND G. F. BENNETT. Epizootiology of *Leucocytozoon simondi* infections ... 29
Famophos, against *Trichostrongylus axei* in gerbils ... 15
Fecundity, in *Australorbis glabratus*, effect of crowding upon ... 24
Fecundity, in *Australorbis glabratus*, effect of *Schistosoma mansoni* infection upon ... 26
Feed efficiency, in swine experimentally infected with *Ascaris suum* ... 45
FERGUSON, F. F. (see Kagan et al.) ... 25

FIFE, E. H. (see Sleeman et al.) 36
Filariasis, in Mountain Province, Luzon, Philippine Islands 47
Fish, as hosts of *Diclybothrium hamulatum* 27
Fish, *Bathygobius fuscus*, parasite patterns in 43
Fluorescent antibody test, cross-reactivity in human malarias with 56
Fluorescent antibody test, in human visceral leishmaniasis 57
Fluorescent techniques for localization of *Ascaris suum* antibody-binding sites 33
FOTORNY, N. (see Coleman) 18
FOX, I. (see Ritchie et al.) 17
FRICK, L. P. (see Ritchie et al.) 17
FRICK, L. P., L. S. RITCHIE, AND WILDA B. KNIGHT. Acquired resistance against *Schistosoma mansoni* in mice, resulting from multiple intraperitoneal and percutaneous exposures 55
Fumagillin, effect on cecal parasites of rats 16
Genital girdle, of *Ascaris lumbricoides*, in relation to estrus 46
Gerbil, as host for screening anthelmintics 15
Giardia muris, electron microscopy of 38
GLEASON, N. N., AND G. R. HEALY. Morphology, pathogenicity, and antigenicity of strain J-93 of *Entamoeba histolytica* 27
Glucose concentration, effect of on respiration of culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Glycolytic intermediates in *Ancylostoma caninum* 53
GOBLE, F. C., AND E. A. KONOPKA. Activity of triphenylmethane dyes in experimental Chagas' disease 17
Gonadectomy, effect on *Nippostrongylus brasiliensis* infections in hamster 37
GOODCHILD, C. G. (see Sulzer) 33
GREENBLATT, C. (see DuBuy et al.) 21
Growth, inhibition of *Ascaris* 52
Growth, of *Histomonas meleagridis* in avian embryos 62
Growth of *Tetratrichomonas gallinarum* in axenic culture 62
GUEVARA, A. (see Warren) 23, 53
Guinea pigs, failure of as paratenic hosts for *Angiostrongylus cantonensis* 48
Gyrocoela pagollae, life cycle 38
Gyrodactylus sp., from eastern Pacific fishes 27
Haemogregarine, saurian, life history 28
HAMMOND, D. M. (see Nyberg) 20
Hamster, golden, edema and ascites with *Leishmania donovani* 29
Hamster kidney tissue in cultivation of *Histomonas meleagridis* 61
HANSON, W. L. (see McGhee) 29
HANSON, W. L., R. B. MCGHEE, AND J. D. BLAKE. Experimental infection of various latex plants with *Phytomonas elmassiani* 30
Hatching, in vitro, of hymenolepid oncospheres 60
HAYES, J. (see DuBuy et al.) 21
HAYES, K. L. (see Cable) 41
HEALY, G. R. (see Gleason) 27
Helminths, behavior of parasite stages of, in a temperature gradient 43
Helminths, intestinal, rapid method for collecting 43
Hemagglutination, indirect test, specificity of for toxoplasmosis 56
HERLICH, H. Resistance to *Trichostrongylus colubriformis* in the guinea pig 33
Heterakis, earthworms in transmission to fowl 50
Heterophyids, action of antisera on cercariae of, in vitro 36
Hexokinase, in *Schizotrypanum cruzi* 23
Hexostoma sp. from eastern Pacific fishes 27
HILL, G. C. (see Lincicome) 22
Histomonas, earthworms in transmission to fowl 50
Histomonas meleagridis, cultivation of with hamster kidney tissue 61
Histomonas meleagridis, growth of in avian embryos 62
Histopathology, in albino mice and rhesus monkeys infected with irradiated cercariae of *Schistosoma mansoni* 53
HOFFMAN, G. L., AND R. E. PUTZ. Development of *Myxosoma* sp. in cartilage of fishes 30
HOLLOWAY, H. L. Morphology and life cycle of a cestode possessing small hooks with bifid guards 23
HONIGBERG, B. M. (see Stabler et al.) 28
HOOGSTRAAL, H. Patterns of tick infestation on birds 30

Hookworms, film on artificial cultivation and experimental transfer of 39
Host–parasite relationships, *Alligator mississipiensis* and *Odhneriotrema incommodum* 40
Howes, H. L., Jr., and L. A. Stauber. Edema and ascites in the golden hamster infected with *Leishmania donovani* 29
Hsü, H. F. (see Hsü, S. Y. Li) 54
Hsü, H. F., J. R. Davis, S. Y. Li Hsü, and J. W. Osborne. Histopathology in albino mice and rhesus monkeys infected with irradiated cercariae of *Schistosoma mansoni* 53
Hsü, S. Y. Li (see Hsü, H. F. et al.) 53
Hsü, S. Y. Li, and H. F. Hsü. Serum protein changes in rhesus monkeys immunized against *Schistosoma japonicum* 54
Humidity, effect of on vertical migration of third-stage trichostrongyloids on different types of forage 44
Hunter, G. W., R. B. Crandall, and V. M. Arean. Resistance to *Schistosoma mansoni* and *Schistosomatium douthitti* infection in mice by heterologous infections 55
Hussey, K. L. A confusing multiple *Taenia* infection 39
Hymenolepid cestodes, in vitro hatching of oncospheres 60
Hymenolepids, antigenicity of, maintained in vitro 37
Hymenolepis microstoma, variations in infectivity of cysticercoids of 23
Hymenolepis nana, effect of 6-mercaptopurine in mice against 18
Hytakerol, inducing metastatic calcification in chickens infected with *Plasmodium gallinaceum* 20
Immunity, acquired, in mice exposed to X-irradiated male cercariae of *Schistosoma mansoni* 55
Immunity, against *Schistosoma japonicum*, serum protein changes in rhesus monkeys 54
Immunity, passive, in pigs to migrating larvae of *Ascaris suum* 33
Immunity, to *Schistosoma mansoni*, acquired by monkeys after exposure to irradiated cercariae of 54
Immunity, to trypanosome infections in rats and mice 56
Immunization, artificial, in rats against *Schistosoma mansoni*, produced by cercarial antigen 54
Incidence, of *Elaphostrongylus odocoilei* in Michigan deer herd 47
Infection, prenatal, of pigs, with the intestinal threadworm, *Strongyloides ransomi* 45
Infectivity of cysticercoids of *Hymenolepis microstoma*, variations in 23
Insects, antifertility effects of anthelmintics in 17
Intermediate host, of *Angiostrongylus cantonensis*, studies on 46
Intradermal tests in large outbreak of trichinosis 34
Irradiation effects on metacercariae of *Paragonimus* 36
Irradiation, of *Schistosoma mansoni* cercariae, as immunization for mice 55
Irradiation, of *Schistosoma mansoni* cercariae, as immunization for monkeys 54
Irradiation, of *Schistosoma mansoni* cercariae, histopathology in mice and monkeys caused by 53
Isseroff, H. Ultrastructure of the eyespot and excretory system in the miracidium of a philophthalmid trematode 41, 58
Jacobs, L., and Marjorie L. Melton. Serological studies on mice born of mothers with chronic toxoplasmosis 57
Jaskoski, B. J. Amino acids in coelomic fluid of *Ascaris suum* 50
Jensen, Dinniemaud V., and Margaret A. Stirewalt. Development of cercariae of *Schistosoma mansoni* under dialysis membranes in Rose multipurpose chambers 61
Jensen, T., and G. R. Dubes. Production and properties of an excystment inhibitor from *Acanthamoeba* sp. 20
Jones, D. J. (see Stewart et al.) 45
Kagan, I. G. (see Chordi et al.) 56
Kagan, I. G. (see Lamb et al.) 34
Kagan, I. G., H. Negron, J. C. Arnold, and F. F. Ferguson. Epidemiologic survey in Puerto Rico for the prevalence of schistosomiasis in schoolchildren 25
Katz, F. F. Testosterone and estrogen treatments of gonadectomized rats with *Strongyloides ratti* infections 52
Kawakami, T. G. (see Balamuth) 61
Kelley, G. W., and D. P. Nayak. Passive immunity in pigs to migrating larvae of *Ascaris suum* 33
Kent, N. H. (see Mills) 35
Kimble, E. T. (see Singer et al.) 21
King, V. M. (see Stabler et al.) 28
Knapp, S. E. Effect of humidity on vertical migration of third-stage trichostrongyloids on different types of forage 44

KNIGHT, WILDA B. (see Frick et al.) 55
KONOPKA, E. A. (see Goble) 17
KUNNENKERI, K., AND W. E. MARTIN. Further studies on the life history of Monogenea mainly from eastern Pacific fishes 27
LAMB, G. A., I. G. KAGAN, R. SCHOLTENS, AND J. PRETZLER. Evaluation of intradermal and serologic tests in a large outbreak of trichinosis 34
Lambs, in Wisconsin, prevalence of whipworms in 46
Latex plants, infection with *Phytomonas elmassiani* 30
LEEK, R. G. (see Lotze) 32
LEFLORE, W. B., AND W. E. MARTIN. In vitro action of antisera on the cercariae of certain heterophyids 36
LEIGH, W. H. An unusual host–parasite relationship between *Alligator mississipiensis* and the trematode, *Odhneriotrema incommodum* 40
Leishmania braziliensis, effect of organics and metabolic inhibitors on respiration of 22
Leishmania braziliensis, effect of pH, glucose concentration, age of culture, crowding, and CO_2 in respiration of the culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Leishmania donovani, edema and ascites in golden hamster 29
Leishmania, in vitro responses to incubation temperatures and bile salts as criteria for species differentiation 62
Leishmaniasis—human visceral, diagnosis of with fluorescent antibody test 57
LELAND, S. E., JR. In vitro cultivation of fourth and fifth stages of the swine nodular worm *Oesophagostomum quadrispinulatum* 58
LELAND, S. E., JR. Preliminary evaluation of *Trichostrongylus axei* in the Mongolian gerbil as a screening system for anthelmintics of domestic animals 15
LEMMA, A. In vitro responses of leptomonads to incubation temperatures and bile salts as criteria for differentiation of species of *Leishmania* 62
Leptomonas oncopelti, life cycle 29
Lernaea cyprinacea, tadpoles as hosts for 43
LESSER, E. Hamster kidney tissue in cultivation of *Histomonas meleagridis* 61
Leucocytozoon simondi, epizootiology 29
Leuresthicola olsoni, from eastern Pac fic fishes 27
LEVINE, N. D., AND J. SZANTO. Screening tests of carbamates and thiocarbamates as potential nematocides 15
LEWERT, R. M. (see Dusanic) 34
LEWIS, J. E., AND E. D. WAGNER. Life history of a new saurian haemogregarine 28
Life cycle, *Leptomonas oncopelti* 29
Life cycle, of a cestode possessing small hooks with bifid guards 23
Life cycle, of *Gyrocoela pagollae* (Cestoda) 38
Life cycle, of the digenetic trematode, *Pleurogenoides tener* 25
Life cycle, *Phytomonas elmassiani* 29
Life history, *Dasymetra conferta* 42
Life history, of Monogenea mainly from eastern Pacific fishes 27
Life history, of new saurian haemogregarine 28
Limpet, allocreadiid cercaria from 41
LINCICOME, D. R. (see DuBuy et al.) 21
LINCICOME, D. R., AND S. O. EMEJUAIWE. Influence of host sex and age on *Trypanosoma lewisi* populations 23
LINCICOME, D. R., AND G. C. HILL. Oxygen consumption of "L" isolate of *Trypanosoma lewisi* 22
LINCICOME, D. R., AND R. C. WATKINS. Relationship of several isolates of *Trypanosoma lewisi* shown by agglutinin titers 57
Lipids, of coccidial oocysts 20
LITTLE, M. D. (see Beaver) 24, 46
LOTZE, J. C., AND R. G. LEEK. Excystation of coccidial parasites in various animals 32
LUND, E. E., E. E. WEHR, AND D. J. ELLIS. Role of earthworms in transmission of *Heterakis* and *Histomonas* to turkeys and chickens 50
LUNDE, M. N. Antigenic relationship of *Toxoplasma gondii* and *Besnoitia jellisoni* 57
MACINNIS, A. J. Evidence for chemical attraction of *Schistosoma mansoni* miracidia 19
MACINNIS, A. J. Responses of *Schistosoma mansoni* miracidia to chemical attractants 19
MACY, R. W. Life cycle of the digenetic trematode, *Pleurogenoides tener* (Looss, 1898) 25
Maintenance, subzero, of *Trichomonas gallinae* 28
Malaria, human, cross-reactivity with fluorescent antibody test 56
Malate in *Ascaris* 51

MALEK, E. A. (see Beaver et al.) 24
MAPLES, W. P. (see Byrd) 42
MARQUARDT, W. C. Observations on living *Eimeria nieschulzi* of the rat 28
MARTIN, W. E. (see Kunnenkeri) 27
MARTIN, W. E. (see LeFlore) 36
MCCLAY, P. (see Waitz et al.) 16
MCCUE, J. F. (see Thorson) 43
MCCUE, J. F., AND R. E. THORSON. Rapid method for collecting intestinal helminths 43
MCGHEE, R. B. (see Hanson et al.) 30
MCGHEE, R. B., AND W. L. HANSON. Comparison of life cycles of *Leptomonas oncopelti* and *Phytomonas elmassiani* 29
MELTON, MARJORIE L. (see Jacobs) 57
MERCADO, TERESA I., AND T. VON BRAND. Metastatic calcification induced by hytakerol in chickens infected with *Plasmodium gallinaceum* 20
6-mercaptopurine as anthelmintic against *Hymenolepis nana* in mice 18
Mesozoa, development of *Dicyema aegira* 31
Metabolic inhibitors, effect on respiration of *Leishmania braziliensis* 22
Metabolism, *Nippostrongylus brasiliensis* 51
Mice, immune response to trypanosome infections in 56
Mice, infected with irradiated *Schistosoma mansoni* cercariae 53
Microfilariae, canine, differentiation 49
Microfilariasis, canine, in sentry dogs in U. S. 49
Migration, of third-stage trichostrongyloids on different types of forage, affected by humidity 44
MILLS, C. K., AND N. H. KENT. Excretions and secretions of *Trichinella spiralis* larvae and their role in immunity 35
Miracidia, of *Schistosoma mansoni*, response to chemical attractants 19
Mite, spiny rat, cuticle 58
Molluscicide, cuprous oxide as a 17
Molluscs, land, from Kenya, East Africa, *Brachylaema* sp. from 26
MONGE, EUGÉNIE DE (see Zeledón) 22
MONGE, EUGÉNIE DE, AND R. ZELEDÓN. Effect of several organic compounds and metabolic inhibitors on respiration of the culture form of a human strain of *Leishmania braziliensis* 22
Monkeys, rhesus, acquired immunity in, following exposure to irradiated cercariae of *Schistosoma mansoni* 54
Monkeys, rhesus, infected with irradiated *Schistosoma mansoni* cercariae 53
Monkeys, rhesus, serum protein changes in with immunization against *Schistosoma japonicum* 54
Monogenea, from eastern Pacific fishes, life history of 27
MOREHOUSE, N. F. (see Baron) 16
MORGAN, D. H. (see Bailey et al.) 49
Morphology, of a cestode possessing small hooks with bifid guards 23
Morphology, of *Entamoeba histolytica*, strain J-93 27
Motion picture—Artificial cultivation and experimental transfer of hookworms 39
Mouse strains, susceptibility of to *Aspiculuris tetraptera* 32
MUELLER, J. F. (see Berntzen) 60
MUELLER, J. F. Further studies on parasite-induced weight gain in mice 18
Myxosoma, development in fish cartilage 30
NAYAK, D. P. (see Kelley) 33
NEGRON, H. (see Kagan et al.) 25
Nematocides, carbamates and thiocarbamates 15
Nematode, larvae of cattle, effect of a grain diet on development of 44
Neoechinorhynchus spp., glycogen depletion in 18
Nippostrongylus brasiliensis, effect of gonadectomy on infections in hamster 37
Nippostrongylus brasiliensis, metabolism 51
Nippostrongylus brasiliensis, serological study of rats and rabbits exposed to 33
NOBLE, E. R. Parasite patterns in the fish *Bathygobius fuscus* 43
NODA, N. Artificial cultivation and experimental transfer of hookworms (film) 39
NODA, N. Artificial cultivation and experimental transfer of hookworms 59
Nutritional requirements of *Entamoeba invadens* 61
NYBERG, P. A., AND D. M. HAMMOND. In vitro excystation of *Eimeria bovis* oocysts 20
OCCHIPINTI, S. (see Rohrbacher et al.) 52
Odhneriotrema incommodum, host–parasite relationship 40

Odocoileus virginianus, Pneumostrongylus tenuis of 47
Oesophagostomum quadrispinulatum, in vitro cultivation 58
Oesophagostomum radiatum, use of larvae of to detect antibodies 32
OLIVER-GONZALEZ, J. (see Villella et al.) 35
OLSEN, L. J. (see Bass) 36, 37
Organic compounds, effect on respiration of *Leishmania braziliensis* 22
OSBORNE, J. W. (see Hsü, H. F. et al.) 53
Oxygen consumption of "L" isolate of *Trypanosoma lewisi* 22
OYA, H. (see Costello) 50
OYA, H. (see Smith et al.) 51
OYA, H., L. C. COSTELLO, AND W. SMITH. Succinate and malate oxidation and cytochrome c reduction in embryonated and unembryonated *Ascaris* eggs 51
PANKAVICH, J. A. (see Wood et al.) 45
Paragonimus, effects and viability of irradiation on metacercariae of 36
Paragonimus eggs, development of in Harada–Mori cultures 24
Paragonimus kellicotti, bithionol as treatment for 16
Parasitemias, *Trypanosoma cruzi* in mice 30
Paratenic host, for *Angiostrongylus cantonensis*, failure of vertebrates to serve as 48
PARRISH, W. B. (see Wharton) 58
Pathogenicity, strain J-93 of *Entamoeba histolytica* 27
Penetration, of skin of domestic rabbits, failure of with larvae of *Trichostrongylus calcaratus* 48
PERLOWAGORA-SZUMLEWICZ, ALINA. Acquired immunity to *Schistosoma mansoni* in mice exposed to X-irradiated male cercariae 55
PETERS, L., AND J. T. SELF. An allocreadiid cercaria from limpets 41
pH, effect of on respiration of culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
Phenothiazine, against *Trichostrongylus axei* in gerbils 15
Philophthalmus, North American and Hawaiian freshwater species 41
Phyllodistomum from the intestine 25
Phytomonas elmassiani, infection of latex plants 30
Phytomonas elmassiani, life cycle 29
Pigs, effect of *Ascaris suum* adults in 45
Pigs, prenatal infection of with *Strongyloides ransomi* 45
PIKE, E. H. Aspects of the bionomics of *Trichuris muris* 46
Plasmodium berghei, in tissue culture, effect of hamster serum on 61
Plasmodium gallinaceum, metastatic calcification induced by hytakerol in chickens infected with 20
Plasmodium relictum, temperature effect in *Culex tarsalis* 28
Pleurogenoides tener, life cycle of 25
Pneumostrongylus tenuis in *Odocoileus virginianus* 40, 47
Postharmostomum sp., in land snails from Uganda, East Africa 26
POWERS, K. G., AND A. C. TODD. Prevalence of whipworms in Wisconsin lambs and sheep 46
PREIZLER, J. (see Lamb et al.) 34
Prevalence, *Spirocerca lupi* 49
PRICE, D. L., H. SPRINZ, R. E. DUXBURY, AND R. W. SMITH. Development of *Dirofilaria uniformis* in *Anopheles quadrimaculatus* 48
Protein, serum, changes in rhesus monkeys immunized against *Schistosoma japonicum* 54
PUTZ, R. E. (see Hoffman) 30
Rabbits, failure of as paratenic hosts of *Angiostrongylus cantonensis* 48
Rabbits, failure of larvae of *Trichostrongylus calcaratus* to penetrate skin of 48
RADKE, M. G. (see Sandt et al.) 24
Rats, immune response to trypanosome infections in 56
Resistance, acquired, against *Schistosoma mansoni* in mice 55
Resistance of newborn mice to *Trichinella* 37
Resistance, to *Schistosoma mansoni* and *Schistosomatium douthitti*, in mice with heterologous nematode infections 55
Resistance to *Trichostrongylus colubriformis* in guinea pig 33
Respiration, of culture form, of human *Leishmania braziliensis*, effect of pH, glucose concentration, age of culture, crowding, and CO_2 on 22
Respiration, of *Leishmania braziliensis*, effect of organics and metabolic inhibitors on 22
REYNOLDS, R. L. (see Brooke) 27
Rhabditis strongyloides, cell inclusions in dauer larvae 40
RHODES, G. (see Russell) 25
RICHARDS, C. S. *Angiostrongylus cantonensis*: Intermediate host studies 46

RITCHIE, L. S., L. P. FRICK, L. A. BERRIOS-DURAN, AND I. FOX. Characterizations of a relatively insoluble molluscicide: cuprous oxide 17
RITCHIE, L. S. (see Frick et al.) 55
RITTS, R. E. (see Singer et al.) 21
ROBERTS, L. S., AND D. FAIRBAIRN. Metabolism of *Nippostrongylus brasiliensis* 51
ROHRBACHER, G. H., JR., S. OCCHIPINTI, AND E. WALETZKY. Inhibition of development of *Ascaris suum* larvae in rodents fed a restricted diet 52
Rose multipurpose chambers, development of cercariae of *Schistosoma mansoni* under dialysis membranes in 61
ROTHSTEIN, N. Canine microfilariasis in sentry dogs in the U. S. 49
ROTHSTEIN, N. Differentiation of canine microfilariae of the U. S. 49
ROZEBOOM, L. E., AND B. D. CABRERA. Filariasis in Mountain Province, Luzon, Philippine Islands 47
RUSSELL, H. T., AND T. W. BINGHAM. *Aspidobothrium* from east Texas 25
RUSSELL, H. T., AND G. RHODES. *Phyllodistomum* from the intestine 25
SADUN, E. H. (see Anderson et al.) 54
SADUN, E. H. (see Diggs) 56
SADUN, E. H. (see Duxbury) 57
SADUN, E. H., AND J. I. BRUCE. Immunity acquired by rhesus monkeys to *Schistosoma mansoni* following exposure to irradiated cercariae 54
SANDT, D. G., J. I. BRUCE, AND M. G. RADKE. A snail colony facility for the mass production of *Schistosoma mansoni* cercariae 24
SAWYER, T. K. In vitro culture of third-stage larvae of *Dirofilaria immitis* 59
SAXE, L. H. (see Egle) 16
SCHIMPFF, R. D. (see Crandall) 35
Schistosoma japonicum, serum protein changes in monkeys immunized against 54
Schistosoma mansoni, acquired immunity in monkeys after exposure to irradiated cercariae of 54
Schistosoma mansoni, acquired immunity to by mice exposed to X-irradiated cercariae of 55
Schistosoma mansoni, artificial immunization against, in rats with cercarial antigen 54
Schistosoma mansoni, blood group A and Forssman antigens in 53
Schistosoma mansoni, cercariae, facility for mass production of 24
Schistosoma mansoni, detection of antigen–antibody complexes of isotopically labeled extracts of following electrophoretic separation 34
Schistosoma mansoni, effect of infection upon fecundity in *Australorbis glabratus* 26
Schistosoma mansoni, in mice, resistance acquired to 55
Schistosoma mansoni, in vitro culture of in Rose multipurpose chambers 61
Schistosoma mansoni, in vitro culture in snail tissues 60
Schistosoma mansoni, irradiated cercariae, histopathology in mice and monkeys caused by 53
Schistosoma mansoni, isolation and characterization of serologically active components from secretory and excretory products of cercariae of 36
Schistosoma mansoni, proteolytic enzyme activity in cercariae of 19
Schistosoma mansoni, resistance to in mice infected with certain nematodes 55
Schistosoma mansoni, responses of miracidia of to chemical attractants 19
Schistosomatium douthitti, resistance to in mice infected with certain nematodes 55
Schistosomes, antigenicity of cercarial preparations by gel-agar diffusion 42
Schistosomiasis, epidemiologic survey of Puerto Rican children for 25
Schizotrypanum cruzi, hexokinase in 23
SCHLUETER, E. A. Microelectrophoretic studies of serum proteins of chickens infected with *Eimeria tenella* 21
SCHOENBECHLER, M. J. (see Anderson et al.) 54
SCHOLTENS, R. (see Lamb et al.) 34
Secretions and excretions of larval *Trichinella spiralis* and role in immunity 35
Secretory and excretory products of *Schistosoma mansoni* cercariae, isolation and characterization of serologically active components of 36
SELF, J. T. (see Peters) 41
Serologic tests in large outbreak of trichinosis 34
Serology, congenital, in mice with toxoplasmosis 57
Serum, hamster, effect of upon *Plasmodium berghei* in tissue culture 61
Serum proteins, microelectrophoresis of, of chickens infected with *Eimeria tenella* 21
Sex, host, influence on *Trypanosoma lewisi* 23
Sheep, in Wisconsin, prevalence of whipworms in 46
SHEFFIELD, H. G. Electron microscopy of intestinal cells of *Ascaris suum* 58
SHIELDS, R. J., AND W. M. TIDD. Tadpoles as host for larval *Lernaea cyprinacea* 43

SHORT, R. B., AND R. T. DAMIAN. Development of the infusoriform stage of *Dicyema aegira* 31
SILVERMAN, P. H. Exsheathment mechanisms of some nematode infective larvae 50
SINGER, I., E. T. KIMBLE III, AND R. E. RITTS, JR. Effect of bacterial endotoxin on mice with *Trypanosoma congolense* infections 21
SLEEMAN, H. K., E. H. FIFE, AND J. I. BRUCE. Isolation and characterization of serologically active components from secretory and excretory products of *Schistosoma mansoni* cercariae 36
SMITH, R. J. Effects and viability of irradiated *Paragonimus* metacercariae in the white rat 36
SMITH, R. W. (see Price et al.) 48
SMITH, S. C. (see Strout et al.) 20
SMITH, W. (see Oya et al.) 51
SMITH, W., L. C. COSTELLO, AND H. OYA. Dehydrogenase activity in *Ascaris* 51
SMITH, W. N. (see Stewart et al.) 45
Snails, facility for mass production of *Schistosoma mansoni* cercariae 24
Snails, land, from Uganda, East Africa, *Postharmostomum* sp. from 26
SOLOMON, G. B. Effect of gonadectomy on *Nippostrongylus brasiliensis* infections in the hamster 37
Species, unidentified, of Monogenea from eastern Pacific fishes 27
Spirocerca lupi, experimental infections 49
Spirocerca lupi, prevalence and epidemiology in Auburn, Alabama 49
Spirometra eggs, development of in Harada–Mori cultures 24
Spirometra, in vitro culture 60
Spirometrid spargana, as cause of weight gain in infected mice 18
SPRINZ, H. (see Price et al.) 48
STABLER, R. M., B. M. HONIGBERG, AND V. M. KING. Effects of long-term cultivation, antibiotics, and maintenance at subzero temperatures on virulence of Jones' Barn strain of *Trichomonas gallinae* 28
STAUBER, L. A. (see Howes) 29
STEWART, T. B., W. N. SMITH, AND D. J. JONES. Prenatal infection of pigs with the intestinal threadworm, *Strongyloides ransomi* 45
STIREWALT, MARGARET A. Antigenicity of schistosome cercarial preparations as demonstrated by gel-agar diffusion on microslides 42
STIREWALT, MARGARET A. Demonstration of proteolytic enzyme activity in cercariae of *Schistosoma mansoni* 19
STIREWALT, MARGARET A. (see Jensen) 61
Streptomycin, effect on cecal parasites of rats 16
Strongyloides ransomi, prenatal infection of pigs with 45
Strongyloides ratti, testosterone and estrogen in gonadectomized rats infected with 52
STROUT, R. G., H. BOTERO, S. C. SMITH, AND W. R. DUNLOP. The lipids of coccidial oocysts 20
Succinate in *Ascaris* 51
Succinic dehydrogenase in *Ancylostoma caninum* 52
SULZER, A. J., AND C. G. GOODCHILD. Serological study of rats and rabbits exposed to *Nippostrongylus brasiliensis* 33
Survival, of infective larvae of *Dictyocaulus viviparus*, effect of sudden lowering of temperature on 44
Susceptibility, of mouse strains to *Aspiculuris tetraptera* 32
SVIHLA, G., AND D. C. BARKER. Ultraviolet microscopy of *Entamoeba invadens* 37
Swine, experimentally infected with *Ascaris suum*, weight gains and feed efficiency in 45
SZANTO, J. (see Levine) 15
Tadpoles as hosts for *Lernaea cyprinacea* 43
Taenia crassiceps, in vitro maintenance 59
Taenia, multiple infection with 39
Tartar emetic as sexual sterilant of screw-worm flies 17
Temperature, effect of sudden lowering on survival of infective larvae of *Dictyocaulus viviparus* 44
Temperature, effect on *Plasmodium relictum* in *Culex tarsalis* 28
Temperature gradient, behavior of parasitic stages of helminths in 43
Temperature, responses in vitro for differentiating *Leishmania* species 62
Testosterone, in gonadectomized rats with *Strongyloides ratti* 52
Tetracycline as a tool for experimental study of cell permeability of *Trypanosoma lewisi* 21
Tetratrichomonas gallinarum, growth and carbohydrate fermentation of in axenic culture 62
Tetratrichomonas gallinarum, in vitro culture effects of bacteria and fungi 62

Tetratrichomonas gallinarum, ultrastructure of 38
THEODORIDES, V. J. Axenic culture of *Tetratrichomonas gallinarum*, effect of bacteria and fungi 62
THEODORIDES, V. J. Axenic culture of *Tetratrichomonas gallinarum*. 1. Growth and fermentation of carbohydrates and related compounds 62
THEODORIDES, V. J. Ultrastructure of *Tetratrichomonas gallinarum* 38
Thiabendazole, against *Trichinella spiralis* 15
Thiabendazole, against *Trichostrongylus axei* in gerbils 15
Thiabendazole, as sexual sterilant for screw-worm flies 17
Thiocarbamates, as nematocides 15
THOMPSON, P. E. (see Waitz et al.) 16
THORSON, R. E. (see McCue) 43
THORSON, R. E., AND J. F. MCCUE. Behavior of parasitic stages of helminths in a temperature gradient 43
Ticks, birds infestation, pattern of 30
TIDD, W. M. (see Shields) 43
Tissue infectivity, *Trypanosoma cruzi* in mice 29
TODD, A. C. (see Powers) 46
Toxoplasma gondii, antigenic relationship with *Besnoitia jellisoni* 57
Toxoplasmosis, serology, congenital, in mice 57
Toxoplasmosis, specificity of indirect hemagglutination test for 56
Trematode, *Pleurogenoides tener*, life cycle of 25
Trichinella spiralis, deposition of isotopically labeled antibodies of 35
Trichinella spiralis, detection of antigen–antibody complexes of isotopically labeled extracts of, following electrophoretic separation 34
Trichinella spiralis, efficacy of drugs against, in swine 15
Trichinella spiralis, infection in newborn mice 36
Trichinella spiralis, in vitro study of leukocyte chemotaxis to antigens of 35
Trichinella spiralis, larval excretions and secretions and role in immunity 35
Trichinella spiralis, resistance to, induced by injection of 5-hydroxytryptophan 15
Trichinella spiralis, resistance to infection of mice at birth to 37
Trichinella, supplementary features for identification of male and female larvae 39
Trichinosis, intradermal and serologic tests in large outbreak of 34
Trichinosis, resistance to, induced by injection of 5-hydroxytryptophan 15
Trichlorphon, against *Trichinella spiralis* 15
Trichomonas gallinae, cultivation of 28
Trichomonas gallinae, effect of antibiotics on 28
Trichomonas gallinae, Jones' Barn strain 28
Trichomonas gallinae, subzero maintenance of 28
Trichomonas hominis, effect of antibiotics on 16
Trichomonas muris, effect of antibiotics on 16
Trichostrongyloid larvae, third-stage, effect of humidity on vertical migration on different types of forage 44
Trichostrongylus axei, as a parasite for screening anthelmintics 15
Trichostrongylus calcaratus, failure of penetration of skin of domestic rabbits by larvae of 48
Trichostrongylus colubriformis, resistance to in guinea pig 33
Trichostrongylus, larval, of cattle, effect of a grain diet on development of 44
Trichuris muris, aspects of bionomics of 46
Triphenylmethane dyes, activity in experimental Chagas' disease 17
Trypanosoma congolense, effect of bacterial endotoxin on mice with infections 21
Trypanosoma cruzi, parasitemias and tissue infectivity in CFW mice 29
Trypanosoma lewisi, cell permeability of, studied with tetracycline 21
Trypanosoma lewisi, influence of host sex and age on 23
Trypanosoma lewisi, oxygen consumption of 22
Trypanosoma lewisi, relationships of several isolates shown by agglutinin titers 51
Trypanosome, infections, immune response of rats and mice to 56
Ultrastructure, eyespot and excretory system in philophthalmid trematode 41, 58
Ultrastructure of *Tetratrichomonas gallinarum* 38
Ultraviolet microscopy of *Entamoeba invadens* 37
VEGORS, H. H. Effect of sudden lowering of temperature on survival of infective larvae of *Dictyocaulus viviparus* 44
Vertebrates, failure of, to serve as paratenic host of *Angiostrongylus cantonensis* 48
VILLELLA, J. B. Supplementary features for identification of male and female *Trichinella* larvae 39

VILLELLA, J. B., J. OLIVER-GONZALEZ, AND M. BERTHOLDS. Deposition of isotopically labeled antibodies in *Trichinella spiralis* 35
VOGE, MARIETTA. Maintenance in vitro of *Taenia crassiceps* cysticerci 59
VOGE, MARIETTA, AND A. K. BERNTZEN. In vitro hatching of oncospheres of four hymenolepid cestodes 60
Volatile acids in *Ancylostoma caninum* 52
VON BRAND, T. (see Mercado) 20
WAGNER, E. D. (see Lewis) 28
WAITZ, J. A., P. MCCLAY, AND P. E. THOMPSON. Activity of 2,2′-thiobis(4,6-dichlorophenol) (bithionol) against *Paragonimus kellicotti* 16
WALETZKY, E. (see Rohrbacher et al.) 52
WALLS, K. W. (see Chordi et al.) 56
WALTON, A. C. Amphibia as hosts of protozoan parasites, I, II, III 31
WARREN, L. G., AND A. GUEVARA. Evidence in favor of a hexokinase in *Schizotrypanum cruzi* 23
WARREN, L. G., AND A. GUEVARA. Glycolytic intermediates occurring in *Ancylostoma caninum* 53
WARREN, L. G. (see Crowley) 52
WARREN, L. G. Succinic dehydrogenase of *Ancylostoma caninum* 52
WATKINS, R. C. (see Lincicome) 57
WEHR, E. E. (see Lund et al.) 50
Weight gain in mice, induced by infection with spirometrid spargana 18
Weight gains, of swine experimentally infected with *Ascaris suum* 45
WEISS, MARGARET L., AND D. L. DEGIUSTI. Effect of hamster serum upon *Plasmodium berghei* in tissue culture 61
WEST, A. J. II. Embryonic layers around acanthor of *Acanthocephalus jacksoni* and *Echinorhynchus gadi* 42
WHARTON, G. W., AND W. B. PARRISH. Hard cuticle of spiny rat mite, *Echinolaelaps echidninus* 53
Whipworms, prevalence of, in Wisconsin lambs and sheep 46
WHITTAKER, F. H. Identification of the intestinal cell inclusions in the dauer larva of *Rhabditis strongyloides* 40
WOOD, I. B., H. BERGER, AND J. A. PANKAVICH. Weight gains and feed efficiency of swine experimentally infected with *Ascaris suum* 45
WOOD, I. B., J. A. PANKAVICH, AND H. BERGER. Effect of *Ascaris suum* adults in pigs 45
ZELEDÓN, R. (see Monge, Eugénie de) 22
ZELEDÓN, R., AND EUGÉNIE DE MONGE. Effect of pH, glucose concentration, age of culture, crowding, and CO_2 on respiration of the culture form of a human strain of *Leishmania braziliensis* (O-CR) 22
ZIMMERMANN, W. J. Efficacy of selected drugs against *Trichinella spiralis* in swine 15